

Page 1	Page 3
1 UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA	1 A P P E A R A N C E S: Continued
2	2 In attendance:
3	3 DAVID W CLOUGH, PhD
4 MORPHOSYS AG, a German Corporation )	4 KATTEN MUCHIN ZAVIS ROSENMAN
5 Plaintiff, )	5 Suite 1600
6 vs. ) Case No. 1:00CV00146(JR)	6 Chicago
7 CAMBRIDGE ANTIBODY TECHNOLOGY )	7 SEAN M WALTON ESQ
8 LIMITED, an English company )	8 MEWBURN ELLIS
9 Defendant. )	9 122 Cambridge Science Park
10	10 Milton Road
11 HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER	11 Cambridge
12	12 CB4 0GG
13 VIDEOTAPED DEPOSITION UPON ORAL EXAMINATION	13 VIDEOGRAPHER:
14 OF	14 MS JOOLS VINER
15 DR DAVID JOHN CHISWELL	15
16	16
17	17
18 On Tuesday, April 30, 2002	18
19 Commencing at 9.08 am	19
20	20
21 Taken at:	21
22 Crowne Plaza Hotel	22
23 Downing Street	23
24 Cambridge	24
25 Cambridgeshire CB2 3DT, England	25
Reported by: Thelma Harries, MBIVR, ACR	
Page 2	Page 4
1 A P P E A R A N C E S:	1 I N D E X
2 On behalf of the Plaintiff:	2 DEPONENT:
3 HELLER EHRMAN WHITE & McCAULIFFE LLP	3 DR DAVID JOHN CHISWELL
4 One East Main Street	4 Examination: Page No:
5 Madison	5 Examination by Mr Skilton 6
6 Wisconsin 53703	6 Cross-examination by Mr Vezeau 223
7 BY : JOHN S SKILTON, ESQ	6 Re-examination by Mr Skilton 232
8 In attendance:	7 -----
9 COLIN G SANDERCOCK, ESQ	8
10 HELLER EHRMAN WHITE & McCAULIFFE LLP	9 EXHIBIT INDEX
11 166 K Street, NW 500	10 NUMBER Page No:
12 Washington, DC 20006-1228	11 Chiswell exhibit 1 8
13 MICHELLE M UMBERGER, ESQ	12 Chiswell exhibit 2 23
14 HELLER EHRMAN WHITE & McCAULIFFE LLP	13 Chiswell exhibit 3 69
15 One East Main Street	14 Chiswell exhibit 4 90
16 Madison	15 Chiswell exhibit 5 97
17 Wisconsin 53703	16 Chiswell exhibit 6 98
18 BERNHARD VIRKENAS, PhD	17 Chiswell exhibit 7 130
19 MORPHOSYS AG	18 Chiswell exhibit 8 161
20 Lena-Christ-Str.48	19 Chiswell exhibit 9 207
21 82152 Martinsried/Planegg	20 PREVIOUSLY MARKED
22 Germany	21 Winter exhibit 1 164
23 On behalf of the Defendants:	22 Winter exhibit 9 36, 195
24 KATTEN MUCHIN ZAVIS ROSENMAN	23 Winter exhibit 10 121
25 525 West Monroe Street	24 Winter exhibit 13 72
	25 Winter exhibit 14 18, 186
	26 McCafferty exhibit 11 178
	27 Jackson exhibit 10 225
	28 CAT 30(b)(6) exhibit 9 213
	29 CAT 30(b)(6) exhibit 22 112
	30
	31
	32
	33
	34
	35
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	37
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1 9.08 am  
 2 VIDEOGRAPHER: Here begins videotape  
 3 number 1 in the deposition of Dr David Chiswell in  
 4 the matter of MorphoSys AG, a German corporation,  
 5 versus Cambridge Antibody Technology Limited, an  
 6 English company, in the United States District  
 7 Court for the District of Columbia, case  
 8 number 1:00CV00146(JR).  
 9 Today's date is 30th April 2002.  
 10 The time on the video monitor is 9.08.  
 11 The video operator today is Jools  
 12 Viner, and this deposition is taking place at the  
 13 Crowne Plaza Hotel, Cambridge, England.  
 14 Counsel, please voice identify  
 15 yourselves and state whom you represent.  
 16 MR SKILTON: For the plaintiff,  
 17 MorphoSys, John Skilton, Colin Sandercock, Michelle  
 18 Umberger, and I believe coming in later in the  
 19 morning will be Dr Bernhard Virnekas.  
 20 MR VEZEAU: Representing the witness  
 21 and also Cambridge Antibody Technology I am Tim  
 22 Vezeau. I am here with my colleague, Jane Choi.  
 23 David Clough will be in here in a moment. We're  
 24 from Katten Muchin Zavis Rosenman. Also with me is  
 25 my colleague, Sean Walton, from Mewburn Ellis.

1 VIDEOGRAPHER: Thank you. The court  
 2 reporter today is Thelma Harries. Would the  
 3 reporter please swear in the witness?  
 4 (Witness sworn)  
 5 MR SKILTON: My objection to the  
 6 presence of Mr Walton is a continuing one.  
 7 DR DAVID JOHN CHISWELL  
 8 having been duly sworn  
 9 was examined and did testify  
 10 as follows:  
 11 EXAMINATION  
 12 BY MR SKILTON:  
 13 Q Good morning, Dr Chiswell.  
 14 A Good morning.  
 15 Q Are you presently employed?  
 16 A No.  
 17 Q When did you cease to be employed by  
 18 Cambridge Antibody Technology?  
 19 A I believe the formal date would have  
 20 been March 31st of this year.  
 21 Q Do you maintain any continued  
 22 relationship of any sort with Cambridge Antibody  
 23 Technology?  
 24 A I am a consultant for Cambridge  
 25 Antibody.

1 Q And are you under contract?  
 2 A I have contractual obligations upon  
 3 leaving.  
 4 Q Would you describe --  
 5 A I have a contract as a consultant.  
 6 Q Two separate contracts?  
 7 A Yes.  
 8 Q Are you appearing today as  
 9 a consultant, to your understanding, under that  
 10 contract?  
 11 A I'm not sure on what legal basis I'm  
 12 appearing today.  
 13 Q Are you being compensated for your  
 14 time?  
 15 A Not explicitly, no.  
 16 Q Do you expect to bill for your time  
 17 as a result of today's deposition?  
 18 A The leaving contract I have  
 19 specifies a number of days for which I will work as  
 20 a consultant for CAT without any further  
 21 compensation. This will be one of those days.  
 22 Q Does that particular document cover  
 23 consultation in the pending cases involving  
 24 MorphoSys?  
 25 A It is not explicit about that.

1 Q What --  
 2 A It's not explicit about that.  
 3 I forget the exact terms used in the contract.  
 4 More generally.  
 5 MR SKILTON: Dr Chiswell, I'm going  
 6 to show you a document, and we'll have it marked as  
 7 exhibit 1 in this deposition.  
 8 I'll identify it while you're paging  
 9 through it as apparently a copy of a notebook,  
 10 which has on its cover the words Croxley Green, and  
 11 it bears the Bates stamp numbers inclusive CM039670  
 12 through 727.  
 13 (Exhibit 1 marked for identification)  
 14 BY MR SKILTON:  
 15 Q Is this a document or at least  
 16 a copy of a document that you recognise?  
 17 A (Witness reviewed the document)  
 18 Yes, I do. I'm just checking to see if there's  
 19 anything else in there. I recognise this document.  
 20 Q What is it?  
 21 A It's a copy of a notebook, which is  
 22 the notes I took at a meeting held at the Banbury  
 23 Conference Centre in Cold Spring Harbor, New York  
 24 in, I believe, April 1992.  
 25 Q I have looked in this notebook for

Page 9

Page 11

1 anything that dates it and, other than by reference  
2 to various documents, I can't find a date stated.  
3 Are you aware of any date in this notebook?

4 A I don't believe I'm aware of any  
5 particular date in the notebook, but I could go  
6 through it if you wanted me to.

7 Q Well, we'll go through it so I'll  
8 point to you what I have seen.

9 When was the last time that you  
10 reviewed this notebook?

11 A The notebook. I re-discovered the  
12 notebook. Date unclear. It would have probably  
13 been February or March of this year. I reviewed it  
14 then. I had discussions with counsel last week, of  
15 which a similar copy was on the table. A similar  
16 copy was on the table.

17 Q Of the notebook itself?

18 A I can't remember the notebook being  
19 there. I can remember this being there. Maybe the  
20 notebook was there.

21 Q One of the things that would be  
22 helpful and --

23 A Actually, no, the notebook was  
24 there.

25 Q The actual notebook. Do you have

Page 10

1 that with you today?

2 A I don't.

3 MR SKILTON: Counsel, do we have  
4 that?

5 MS CHOI: Actually the notebook was  
6 not there.

7 MR VEZEAU: We do not.

8 MR SKILTON: And the reason I ask

9 for it is that his writing is hard to read on  
10 a copy. I would expect it's hard to read on the --

11 THE WITNESS: I'm afraid it is.

12 MR SKILTON: -- but it would be  
13 easier to read writing from the original.

14 BY MR SKILTON:

15 Q Would you agree with that,  
16 Dr Chiswell?

17 A I'm not sure actually. You haven't  
18 seen the original. It is not going to be easy to  
19 read.

20 Q Where did you find this document?

21 A I believe it was in one of the  
22 drawers in my desk.

23 Q Why was it that you kept this  
24 notebook?

25 A I'm not sure explicitly why I kept

1 the notebook. I think it's probably more it wasn't  
2 discarded rather than deliberately kept.

3 Q You are a PhD by training?

4 A I am indeed.

5 Q We're involved in a case involving  
6 what the lawyers call the 108 patent, the  
7 McCafferty patent?

8 A Yes.

9 Q Did you make a scientific  
10 contribution to that patent?

11 A I believe I did.

12 Q What was your scientific  
13 contribution?

14 A I was involved in, extensively  
15 involved in early discussions with all the people  
16 scientifically involved at the time,  
17 particularly Greg Winter and John McCafferty when  
18 we were conceiving what we wanted to do and we were  
19 designing the experiments to actually do, and in  
20 analysing the results and re-focusing the work.

21 Q When was it that you conceived what  
22 it was that you wanted to do?

23 A During the early formation of CAT  
24 one of the things that we wanted to do was to solve  
25 a problem in the state of the art at the time.

Page 12

1 That would have been beginning probably the summer  
2 of 1989 and then going through the work. It  
3 subsequently went for the next number of years.

4 Q When was CAT officially formed?

5 A The legal incorporation date, if  
6 I remember correctly, was 11th December 1989.

7 Q When did you become an employee of  
8 CAT?

9 A 1st January 1990.

10 Q Prior to that you had been employed  
11 by Amersham?

12 A That's correct.

13 Q When did you cease your employment  
14 at Amersham?

15 A Amersham -- formally I would have  
16 ceased to become an employee of Amersham at the end  
17 of 1989. Also Amersham made me redundant in,  
18 I believe, the summer of 1989.

19 Q Were you let go in the summer of  
20 1989?

21 A No, Amersham continued to pay.

22 Q I'm sorry?

23 A Amersham continued to pay, but we  
24 had mutually agreed in the summer of 1989 that  
25 I would leave.

Page 13

Page 15

1 Q And as of what date?  
 2 A I can't be explicit on the dates.  
 3 MR VEZEAU: The question is a little  
 4 ambiguous, John. "As of what date?? Are you  
 5 saying --  
 6 MR SKILTON: Yes, I'll rephrase it.  
 7 MR VEZEAU: Yes.  
 8 BY MR SKILTON:  
 9 Q When you became redundant or you --  
 10 strike that.  
 11 You were advised that you would  
 12 become redundant at some point?  
 13 A Yes. Now to help you out; Amersham  
 14 announced they would close the group within which  
 15 I was working, which included my team, my group.  
 16 That would have been June or July of 1989.  
 17 Q And at the time that they made that  
 18 announcement, did they give you a date by which you  
 19 would no longer be paid by the corporation?  
 20 A Not at the time.  
 21 Q Did you continue after that  
 22 announcement to be employed at Amersham?  
 23 A Yes. The situation evolved over the  
 24 next few months, but I continued to be formally  
 25 employed by Amersham.

Page 14

1 Q You were working at Amersham during  
 2 the next few months?  
 3 A Yes.  
 4 Q And were you working in a laboratory  
 5 at Amersham?  
 6 A Strictly my work place at Amersham  
 7 would have been an office off a laboratory.  
 8 Q Was John McCafferty working at  
 9 Amersham during the months after the announcement  
 10 of redundancy and prior to January 1st, 1990?  
 11 A Yes.  
 12 Q Was he working in a lab at Amersham?  
 13 A Yes.  
 14 Q Was that the lab that was adjacent  
 15 to your office?  
 16 A Yes.  
 17 Q Was Michael Pope working at Amersham  
 18 during this same period?  
 19 A That's the wrong name.  
 20 Q I'm sorry.  
 21 A I believe you mean Anthony Pope.  
 22 Q Yes, thank you. Anthony Pope?  
 23 A Yes, and he was working at Amersham.  
 24 Q And, again, in the lab next to your  
 25 office?

1 A No.  
 2 Q Where was he working?  
 3 A He was, I believe, located on what  
 4 was called the main Amersham site, which was  
 5 approximately two miles away.  
 6 Q Where was your office  
 7 geographically?  
 8 A It was in an Amersham site which was  
 9 called Pollards Wood.  
 10 Q Would you spell that, please?  
 11 A P-o-l-l-a-r-d-s.  
 12 Q What kind of work were you doing  
 13 during this period from the summer of 1989 through  
 14 the end of 1989 while you were still employed at  
 15 Amersham?  
 16 A The principal work involved, really,  
 17 looking after my group and making sure they had  
 18 alternative employment, either within Amersham or  
 19 external to Amersham.  
 20 Q When was it that you first started  
 21 to discuss the possibility of forming a company  
 22 that ultimately became Cambridge Antibody  
 23 Technology?  
 24 A Literally the week after the  
 25 announcement.

Page 16

1 Q And who was involved with you in any  
 2 such discussion?  
 3 A When?  
 4 Q As soon as you started to talk about  
 5 it?  
 6 A As soon as the group was told that  
 7 we were going to be closed down, then I made it  
 8 clear to my group that one of the options we had  
 9 was to form a company based on what I believe were  
 10 our antibody engineering skills.  
 11 Q Who was in your -- I'm sorry, finish  
 12 your answer.  
 13 A One week after that, the day after  
 14 the announcement, Greg Winter, who was a consultant  
 15 for Amersham, came and gave a talk, and we had an  
 16 explicit discussion then of what my plans were.  
 17 And that really, I suppose, is the genesis of what  
 18 turned out to be Cambridge Antibody.  
 19 Q Who was in your group at that time,  
 20 at the time that Winter gave the talk?  
 21 A I had approximately -- I'm not quite  
 22 sure -- say nine people in my group. I'm not sure  
 23 I could give you all of the names.  
 24 Q Why don't you name those who  
 25 ultimately came with you to Cambridge Antibody



1 Technology?

2 A The only one in the group who came  
3 with me at the beginning was John McCafferty. Many  
4 years later Anne Field, who was also in my group,  
5 joined, but that was -- I don't know actually what  
6 the time of that was. Probably '95. A long time  
7 ago.

8 Q Did you know Ron Jackson at this  
9 time, the time of --

10 A Yes, I did.

11 Q How did you know him at this time?

12 A We were friends, I suppose.

13 Q Where was he employed?

14 A He was employed at Amersham.

15 Q Had you done any work with Ron  
16 Jackson while you were at Amersham?

17 A I was aware of the work that Ron's  
18 group was doing. I don't recall actually  
19 explicitly working together with him on any  
20 project.

21 Q Now, did you do some of the work  
22 that ultimately was incorporated in the work that  
23 you did on what became the McCafferty patent while  
24 you were at Amersham?

25 MR VEZEAU: I'd like -- John, listen

1 to that question. I think it --

2 MR SKILTON: I'll rephrase it. We  
3 don't need to argue about my questions.

4 MR VEZEAU: I'm not arguing. I just  
5 asked you to listen to it.

6 MR SKILTON: I'm happy to listen to  
7 it but I'll ask another one.

8 MR VEZEAU: Okay.

9 BY MR SKILTON:

10 Q When was the first work that you did  
11 personally, Dr Chiswell, with reference to the  
12 application that ultimately became the United  
13 States 108 patent?

14 MR VEZEAU: I'm going to object  
15 to that question because I'm not sure which  
16 application you're referring to.

17 MR SKILTON: All right, let's be  
18 specific.

19 BY MR SKILTON:

20 Q I'm going to show you what was  
21 marked yesterday as exhibit 14 in the Winter  
22 deposition, which bears the Bates stamp CM000348  
23 through 383.

24 As a first question, Dr Chiswell, do  
25 you recognise this document?

1 A (Witness reviewed the document)

2 "Recognise" is probably the wrong word but I...

3 Q Did you have any -- let me refer you  
4 to the page beginning CM000351, and it begins with  
5 a discussion that's labelled Binding Substances.

6 Did you have any role with respect  
7 to drafting the portion of the document that begins  
8 on page 351?

9 A Well, I believe this document would  
10 be the priority filing for the patent in question,  
11 and, yes, I had an involvement in drafting it.

12 Q What was your involvement?

13 A At the time, my involvement would  
14 have been to draft probably much of the basic text  
15 that would then act as a first draft for everyone  
16 -- our patent attorneys, other inventors -- to  
17 comment on. I would not have drafted, I don't  
18 believe, the explicit examples.

19 Q And those examples are found in the  
20 text of this document? Is that what're are  
21 referring to? And we can look, for example, to --  
22 let's look to page 23 and example 3 just as an  
23 example. Is that what you meant by you would not  
24 have drafted the examples?

25 A That's correct.

1 Q Just since we're on page 23 --

2 A I'm not; I'll go back.

3 Q Do you know who drafted example 3,  
4 the language of example 3?

5 A I couldn't be explicit.

6 Q Who else was involved with you in  
7 the drafting of this priority document?

8 A The people who would have been  
9 commenting on it, I couldn't be explicit about who  
10 else drafted what bits of section. It's too far in  
11 the past.

12 The people who were part of the  
13 process that led to the document would have  
14 included Greg Winter, John McCafferty, Caroline  
15 O'Brien, myself. I'm not sure about the  
16 involvement at that particular time of Ron Jackson.

17 Q Let's focus on Dr Jackson. Was he  
18 a part of the work that was going on? And you'll  
19 see this document bears a Bates stamp, and I think  
20 we agree it was filed on the date of July 10 of  
21 1990. Was Ron Jackson involved in this work at  
22 that time?

23 A If he was, he'd only just started at  
24 CAT. He started to work at CAT, I believe, in May  
25 of 1990. So we'd have to look at Ron's notebook to

Page 21

Page 23

1 see whether he was involved in the work. I believe  
2 his main project, if not his sole project, did not  
3 involve phage display at this particular time.

4 Q Now, were you working with a lawyer  
5 in finalising this draft?

6 A A patenter?

7 Q Yes.

8 A Yes.

9 Q Who was that person by name?

10 A It was Caroline O'Brien.

11 Q Would you spell that, please?

12 A It's on the document, the first  
13 page. No, the next page, sorry.

14 Q O'Brien, I'm sorry. On occasion I'm  
15 going to have trouble with your accent.

16 A Yes.

17 Q And you'll have trouble with mine,  
18 I'm sure.

19 And she was with the law firm of  
20 Mewburn Ellis?

21 A Correct.

22 Q Who was Mewburn Ellis representing  
23 at that time, to the best of your knowledge, with  
24 reference to this particular application?

25 A Cambridge Antibody.

1 document?

2 MR VEZEAU: What involvement are you  
3 remembering to?

4 MR SKILTON: In this document. In  
5 the preparation of this document.

6 THE WITNESS: I'm not sure about the  
7 word "primary". I think my involvement would have  
8 been to extensively draft it. I can't recall  
9 whether Greg was involved or how much John  
10 McCafferty would have drafted, and how much  
11 Caroline would have drafted herself.

12 BY MR SKILTON:

13 Q Who were the inventors with respect  
14 to this particular application, Dr Chiswell?

15 A That's the people who were listed as  
16 inventors of the priority document?

17 Q Yes.

18 A My understanding is that the work  
19 involved in there would have included work from  
20 Andrew Griffiths, and Greg Winter's lab, Greg  
21 Winter, and John McCafferty and myself. But it  
22 depends on how we define "invention" as to who is  
23 the inventor.

24 MR SKILTON: Mark this, please.

25 This will be Chiswell 2

Page 22

Page 24

1 Q Was it representing the MRC at this  
2 time?

3 A I can't recall the particular  
4 point. I would believe that CAT were paying the  
5 fees.

6 Q Do you know where Caroline O'Brien  
7 is today?

8 A No, I don't.

9 Q When was the last time you worked  
10 with her?

11 A I'm not too clear. Probably we  
12 worked on for the year after this, but I can't be  
13 clear when we stopped working with her.

14 Q Now, are you certain that Dr Winter  
15 saw and reviewed this document, or a draft of it,  
16 prior to the date of July 10th of 1990?

17 A Certainly it's a long time away.  
18 I would expect that to have been the case, that he  
19 would have reviewed it.

20 Q Do you recall consulting with him on  
21 this document?

22 A Frankly, not explicitly. I can't  
23 recall any dates.

24 Q Is it correct to characterise your  
25 involvement as that of the primary drafter of this

1 (Exhibit 2 marked for identification)

2 BY MR SKILTON:

3 Q I have placed in front of you,  
4 Dr Chiswell, a document which bears the Bates stamp  
5 number CM030229 which is, on its face, a file copy  
6 of a specification for British application. The  
7 date filed is 10 July 1990, and it does relate --  
8 you'll see, if you look at page CM00349 -- by  
9 number to the number that is stamped on the cover  
10 of that page, 349?

11 A I'm not sure of the reference you  
12 gave me then. Where would I look?

13 Q You look where application number is  
14 on exhibit 2. Do you see that?

15 A Yes.

16 Q And that number is 9015198.6?

17 A Yes.

18 Q You look to the document which is  
19 exhibit 14, page 349?

20 A Yes.

21 Q And you'll see a stamped number at  
22 the top of that document, 9015198.6?

23 A Yes.

24 Q The two numbers correlate?

25 A They do.

Page 25

Page 27

1 Q Can you identify what this  
2 specification is, to your understanding?  
3 MR VEZEAU: "This". What  
4 specification are you talking about?  
5 MR SKILTON: Exhibit 2.  
6 MR VEZEAU: That's not  
7 a specification.  
8 THE WITNESS: Piece of paper.  
9 MR VEZEAU: It's a piece of paper.  
10 BY MR SKILTON:  
11 Q What is this document, Dr Chiswell?  
12 A It's a piece of paper that says it's  
13 a specification for a British patent application.  
14 Q Thank you. And --  
15 A Which coincides with the number of  
16 the priority document you gave me earlier.  
17 Q Thank you. Does it list inventors?  
18 A Yes.  
19 Q And you and Dr McCafferty are the  
20 listed inventors?  
21 A Yes.  
22 Q And you reviewed this document  
23 before it was filed by attorney O'Brien?  
24 A I can't be explicit. I would assume  
25 I did.

Page 26

1 Q As well, the document which is  
2 contained in exhibit 14?  
3 A Again, yes, I would assume I did.  
4 Q Is it a correct statement that you  
5 and Dr McCafferty are the inventors of that which  
6 is described in exhibit 14?  
7 A We are the inventors listed on the  
8 document.  
9 Q Do you know whether or not Dr Winter  
10 reviewed either exhibit 14 or Chiswell 2 prior to  
11 these documents being filed?  
12 A Again, I have no specific  
13 recollection. Again, I would assume that he did.  
14 Q Is it your belief that there are  
15 more inventors than the two that are listed in  
16 exhibit 2 with respect to that which is described  
17 in exhibit 14?  
18 A I would say that I'm not sure that  
19 I understand what inventors are in the context of  
20 a filed British priority document.  
21 Q Well, what is your understanding  
22 as to who were the inventors of that which is  
23 described in exhibit 14?  
24 A My understanding is that those names  
25 would be put down on the advice of counsel.

1 Q Are there other inventors, to your  
2 understanding, than the two that are listed in  
3 exhibit 2?  
4 A Well, what I don't know is I don't  
5 know what the status of the invention that was  
6 listed in this particular paper was.  
7 Q Why don't you explain that? What do  
8 you mean by status?  
9 A Well, here we were making the first  
10 filing priority application for a British patent.  
11 Q What was the status as of July 10th  
12 of the invention?  
13 A Within the laboratory -- I mean,  
14 I can't talk about the legal status of the  
15 invention at the time.  
16 Q Right, within the laboratory?  
17 A Within the laboratory, by working  
18 together with Greg Winter and Andrew Griffiths, we  
19 had shown -- John McCafferty had done the practical  
20 work to show that actually we had display on phage  
21 of an antibody; strictly an antibody fragment.  
22 Q Can you explain why it was that no  
23 person from the MRC was named as an inventor?  
24 MR VEZEAU: On this sheet of paper?  
25 BY MR SKILTON:

Page 28

1 Q On exhibit 2?  
2 A I have no recollection of why they  
3 are not.  
4 Q As of July 10th, and now talking  
5 about the status of the invention in the lab, had  
6 you displayed a library of antibodies on phage at  
7 that time?  
8 A To be absolutely sure, I would need  
9 to look at people's notebooks at the time. I can  
10 give you my belief, but I can't be absolutely sure.  
11 Q What is your belief?  
12 A My belief is that I doubt that we  
13 had got as far as displaying a repertoire. I think  
14 we expected that that would be there, within the  
15 concept of what we were doing.  
16 Q Dr Chiswell, as of this time, July  
17 10 of 1990, were you working in the laboratory with  
18 reference to this particular disclosure?  
19 A I take it by that you mean practical  
20 laboratory work?  
21 Q Yes.  
22 A I don't believe I was.  
23 Q With respect to that which is  
24 described in exhibit 14, did you have any practical  
25 laboratory work involvement with respect to this

1 project?

2 A No.

3 Q Would you describe, in your words,  
4 what the invention was as laid out in exhibit 14?

5 MR VEZEAU: Dr Chiswell, I don't  
6 know if you understand this question. Candidly  
7 I don't. But I must tell you, this is an involved  
8 document. If you need to, in answering that  
9 question, to the extent you can answer it, and you  
10 need to review this document you should do so.

11 THE WITNESS: Would you like to  
12 rephrase the question, repeat the question, then  
13 I can --

14 MR SKILTON: Read it back, please.

15 COURT REPORTER: "Q. Would you  
16 describe, in your words, what the invention was as  
17 laid out in exhibit 14?"

18 THE WITNESS: I would need to review  
19 the document.

20 BY MR SKILTON:

21 Q And you haven't done so recently?

22 A This particular document? No.

23 Q When was the last time, to the best  
24 of your knowledge, that you took the time to review  
25 this document?

1 A This is the priority document?

2 Q Yes, it is. I'm talking about  
3 specifically exhibit 14.

4 A I can't recall the last time. It  
5 would have been some years' ago.

6 Q You did review some documents in  
7 preparing for this deposition, did you not?

8 A Yes.

9 Q What documents did you review?

10 A The closest related one to this one  
11 would be the actual granted patent itself.

12 Q All right, and, since we're making  
13 a list of documents you reviewed, what other  
14 documents did you review?

15 A I reviewed documents relating to  
16 discussions with the MRC. As I said, I reviewed  
17 the documents that you gave me earlier, the Croxley  
18 Park one, and a report that came out of that.  
19 I reviewed documents that were involved in the  
20 establishing of CAT in 1989.

21 Q Any others that you can think of?

22 A Those are the general ones.

23 Q I want to refer you here, and  
24 I don't wish to get bogged down in a document  
25 that's very lengthy, so if your answer is you need

1 to read the whole document I'll happy accept that,  
2 all right?

3 A Okay.

4 Q Look at with me CM000356, and I want  
5 you, when you get there, to look at the sentence  
6 that begins "surprisingly". That's on line,  
7 roughly, 9.

8 A Okay, just that one sentence?

9 Q Would you read that one sentence?

10 A Yes. (Witness reviewed the  
11 document) Okay.

12 Q Does this sentence, as you read it,  
13 describe the invention?

14 MR VEZEAU: I'm going to object to  
15 that because I'm not sure what you mean by  
16 "invention" and "the invention".

17 MR SKILTON: The invention that was  
18 set forth in the priority document, exhibit 14.

19 MR VEZEAU: Again, you're asking,  
20 then, Dr Chiswell to summarise this entire document  
21 in one sentence. He's already told you he hasn't  
22 read it. So that's an unfair question.

23 MR SKILTON: No, it's not unfair.

24 If he says he can't answer the question without  
25 reading the entire document, I told him he could

1 answer that way.

2 (To the witness) Can you answer the  
3 question?

4 THE WITNESS: Perhaps we'd better  
5 repeat it.

6 MR SKILTON: (To the court reporter)  
7 Please.

8 COURT REPORTER: "Q. Does this  
9 sentence, as you read it, describe the invention?"

10 THE WITNESS: I don't think any one  
11 sentence in here can describe the invention.

12 BY MR SKILTON:

13 Q Did you work on a method for  
14 producing a package which is displayed on the  
15 surface of phage? Is that what you were doing?

16 A That, again, is a sentence trying  
17 to describe the invention -- and not accurately,  
18 I believe.

19 Q Let me read a sentence to you and  
20 see whether you agree with it, and it begins at  
21 line 27. Are you with me, same page, 356?

22 A Yes.

23 Q "The present invention provides  
24 a method for producing a package which method  
25 comprises the steps of..." Are you familiar with

1 that sentence?  
 2 A Yes.  
 3 Q And you can read it thereafter. Did  
 4 you draft this portion of the document?  
 5 A Again, I can't remember exactly what  
 6 sentences I would have drafted, how they got  
 7 changed in the discussions with counsel, but  
 8 certainly I was involved in the construction of the  
 9 document.  
 10 Q Now, looking to the next page, 357  
 11 -- and, again, if you need to read to where I am,  
 12 you do so, please.  
 13 A I may need to, but if you go to  
 14 where I need to go to?  
 15 Q Why don't you take from "The method"  
 16 on and read, if you will, through the word  
 17 "alternatively", which is the bottom of 357. So  
 18 I'm having you read page 6 and page 7.  
 19 A Okay.  
 20 MR VEZEAU: Well, it might be better  
 21 if you told Dr Chiswell what the question is,  
 22 because he may need to read other portions of this  
 23 document to answer your question, John.  
 24 MR SKILTON: I understand that.  
 25 Let's first have him read it. If he needs to read

1 it again, in light of the question, I'll have no  
 2 objection to that.  
 3 MR VEZEAU: Fine.  
 4 MR SKILTON: Let's get him to have  
 5 context here.  
 6 THE WITNESS: (Witness reviewed the  
 7 document) Okay, I've read it once, so you can ask  
 8 your question.  
 9 BY MR SKILTON:  
 10 Q All right. Let me refer you, then,  
 11 within the context of what you read to the  
 12 sentence, and I'll read it in the record. It  
 13 appears on page 357, and roughly the end of line  
 14 19:  
 15 "The nucleotide sequence may be  
 16 inserted within the gene III region of fd."  
 17 Can you state who it was within your  
 18 group that made the determination as to where to  
 19 insert the sequence in gene III?  
 20 A Explicitly?  
 21 Q Yes.  
 22 A I can't absolutely recall. It would  
 23 have been part of discussions that I would have had  
 24 with John McCafferty and, I would assume, with  
 25 Greg Winter.

1 Q Did you have any discussions  
 2 relating to the insertion point on gene III with  
 3 John McCafferty while you were at Amersham?  
 4 A I can't recall.  
 5 Q Did you keep any notebooks of your  
 6 work with respect to filamentous phage and the  
 7 display of antibodies while you were at Amersham?  
 8 A I wasn't working on filamentous  
 9 phage and display of antibodies.  
 10 Q Were you thinking about it then?  
 11 A I was thinking about it.  
 12 Q Was John McCafferty doing any work  
 13 with respect to the filamentous phage display of  
 14 antibodies --  
 15 A I think --  
 16 Q Let me finish my sentence, please --  
 17 while he was employed at Amersham?  
 18 A I'm sure John was thinking about it.  
 19 Q Was he doing any work --  
 20 A I can't recall.  
 21 Q -- in reference to it?  
 22 A I can't recall.  
 23 Q Did he keep a notebook while he was  
 24 at Amersham?  
 25 A He would have done, yes.

1 Q Do you know whether he at one time  
 2 had a notebook which recorded work with respect to  
 3 the filamentous phage display of antibodies while  
 4 he was at Amersham?  
 5 A Well, I've said I can't recall that  
 6 he did any work on filamentous phage at Amersham.  
 7 Q You've reviewed documents relating  
 8 to your communications with the MRC concerning the  
 9 inventive work?  
 10 A Yes. I'm going to place in front of  
 11 you exhibit 9 from the deposition of Dr Winter.  
 12 A Am I finished with this page for  
 13 now?  
 14 Q Yes, but keep that document. I'll  
 15 be using it again.  
 16 A I wasn't going to throw it away.  
 17 Q That's good.  
 18 I'm showing you what was earlier  
 19 marked in the deposition of Dr Winter as  
 20 exhibit 9. Is this a document that you reviewed in  
 21 preparation for this deposition?  
 22 A If you give me a minute I'll just  
 23 check.  
 24 Q Indeed.  
 25 A (Witness reviewed the document) The

1 copy is getting pretty poor, but I believe it was.  
2 Q It purports to be a memorandum from  
3 you to Martin Wood and it bears the date of July  
4 30th 1990. Do you recall having written this  
5 memorandum?

6 A Yes.

7 Q And attached to this --

8 A I should be explicit. There are  
9 actually notations which are not mine.

10 Q All right, and we'll determine the  
11 notations.

12 Attached to that cover memorandum is  
13 a document entitled a preliminary discussion  
14 document, with your name and the date of July 27th  
15 1990. Do you recognise this document as one that  
16 you prepared on or about that date?

17 A Yes, I do.

18 Q Why was this preliminary discussion  
19 document prepared, Dr Chiswell?

20 A If you give me a second to read it?

21 Q Take your time.

22 A (Witness reviewed the document) My  
23 recollection is it was a document which was part of  
24 the discussions with the MRC as to how we would  
25 organise the commercialisation and the share of

1 sentences in the order that I would wish to point  
2 your attention to. So I'm reading under 2.1,  
3 history. I'll read the first sentence into the  
4 record:

5 "Many people in the field,  
6 including independently Greg and myself, realised  
7 that expressing antibodies on the surface of  
8 bacteria or phage would be attractive."

9 Who were the "many people" that you  
10 were alluding to in this sentence?

11 A I'm not sure I could list the "many  
12 people". There would have been work in the field,  
13 which would include bacterio phage Lambda, but I'm  
14 not sure what explicitly I would have been aware of  
15 at the time.

16 Q Well, this is a specific sentence,  
17 and if you have no recall of it then that's the  
18 answer, but your "many people" refers, in text, to  
19 the following clause:

20 "Many people realised that  
21 expressing antibodies on the surface of bacteria or  
22 phage would be attractive." So we're not talking,  
23 or are we talking, about Lambda phage here?

24 A We're talking about bacteria or  
25 phage. We aren't explicit about either.

1 reward if you like, arising from the project we're  
2 talking about.

3 Q Did you draft this document  
4 personally?

5 A Yes.

6 Q Was it intended to give correct  
7 information?

8 A Yes.

9 Q Did you believe it to be correct at  
10 the time?

11 A I did.

12 Q I'm going to point your particular  
13 attention now just to the section 2.1, history,  
14 which appears on page CM040144. If you need to  
15 read the document to that point?

16 A Would you like me to read that  
17 paragraph of that document to that point?

18 Q Why don't you read the paragraph and  
19 then I'll ask questions. And as you're doing it  
20 I'll say this; If there's a time when you wish to  
21 re-read all or part of a document to answer a  
22 question, you just tell me that.

23 A Okay. (Witness reviewed the  
24 document) Okay.

25 Q Let me take you through the

1 Q Are you able to, as you sit here  
2 today, list any of the people that you were  
3 referring to, by name?

4 A I have no recollection of who I was  
5 referring to, so the answer would be "no".

6 Q All right. "The problem has been  
7 how to make it work." How did you identify that  
8 problem as recounted in this sentence?

9 A It's the difference between  
10 something which is viewed as a general good and  
11 a practical demonstration of something that  
12 actually works. The general good to be strived  
13 for, if you like.

14 Q So is it correct to say that many  
15 people realised the general good to be strived  
16 for? Is that what you're saying here?

17 A That's a reasonable interpretation.

18 Q Now the next sentence is the one  
19 I want to point your specific attention to:

20 "John McCafferty and myself devised  
21 a potential solution and made the key  
22 oligonucleotides during the Autumn of 1989."

23 Is that a correct sentence?

24 MR VEZEAU: You mean your reading of  
25 it?

1 MR SKILTON: Let me rephrase it.  
 2 BY MR SKILTON:  
 3 Q Is that a correct statement?  
 4 A The sentence is, presumably,  
 5 a correct statement, since I wrote it at the time.  
 6 I believed it to be correct at the time.  
 7 Q Would you describe what the  
 8 potential solution was that was devised in the  
 9 autumn of 1989?  
 10 A Explicitly, my recollection is not  
 11 good enough to be able to say exactly what it was.  
 12 I can say that I would expect it to be a site or  
 13 a number of sites within the phage fd which we  
 14 could investigate whether we could insert an  
 15 antibody or an antibody fragment at the time.  
 16 MR SKILTON: Would you read the  
 17 answer back, please?  
 18 COURT REPORTER: Certainly.  
 19 "A. Explicitly, my recollection is  
 20 not good enough to be able to say exactly what it  
 21 was. I can say that I would expect it to be a site  
 22 or a number of sites within the phage fd which we  
 23 could investigate whether we could insert an  
 24 antibody or an antibody fragment at the time."  
 25 BY MR SKILTON:

1 relatively short peptide sequences.  
 2 Q And one of those that you looked at,  
 3 and that Smith had articulated, was at the end  
 4 terminus, wasn't it?  
 5 A It was close to the end terminus.  
 6 Q And was that one of the reasons that  
 7 you were examining that site as a possible site for  
 8 the insertion with respect to the antibody phage  
 9 display?  
 10 A Well, we weren't explicitly just  
 11 looking at antibody phage display at the time.  
 12 I was also aware of other prior art that I recall  
 13 in other related fields which had looked at  
 14 expressing peptides on proteins that appear on the  
 15 surface of bacteria themselves.  
 16 Q Had you concluded in the autumn of  
 17 1989 that the proper insertion site was at the end  
 18 terminus of the gene III?  
 19 A I don't think that we -- I mean,  
 20 "concluded" is too strong a word. I think we had  
 21 identified that there was a site there which was  
 22 worth trying.  
 23 Q Would you describe what work you  
 24 had done in order to come to this preliminary  
 25 determination?

1 Q When did you first start to look at  
 2 this problem, Dr Chiswell?  
 3 A The general problem of expressing  
 4 antibodies on phage?  
 5 Q No, the question of insertion site?  
 6 A It would have been some time during  
 7 1989.  
 8 Q What did you use to help you examine  
 9 the alternatives with respect to the issue of  
 10 insertion site? Did you look at prior art?  
 11 A Absolutely.  
 12 Q Did you look at Smith?  
 13 A Absolutely.  
 14 Q Did you look at Parmley and Smith?  
 15 A That was the paper in 1985?  
 16 Q The Smith paper was 1985. The  
 17 Parmley Smith paper was 1988.  
 18 A I believe I would have looked at  
 19 both of those.  
 20 Q Did they offer you insight as to an  
 21 insertion site that might work with respect to the  
 22 display of antibodies on phage?  
 23 A I wouldn't say that. They showed --  
 24 the work they showed was insertion sites within  
 25 certain phage where you could expect to insert

1 A This is recollection?  
 2 Q Yes, sir.  
 3 A I'll tell it as I recall it.  
 4 It would have been examining the  
 5 work of Smith to see what had worked and had not  
 6 worked in the field of peptide display.  
 7 My recollection was that there were  
 8 many aspects of the work of Smith which either  
 9 implied or suggested or strongly suggested that  
 10 anything relatively larger than he had used and --  
 11 I mean, in our instance, there was no work within  
 12 the prior art that I was aware of that spoke to  
 13 whether functional activity of the protein that was  
 14 inserted in a biological sense was obtained. So we  
 15 were looking at what had been done in the past.  
 16 We also would have had an awareness  
 17 of the antibody molecule and how its domain  
 18 structure was believed to be at the time, and the  
 19 sequences of certain antibody molecules.  
 20 That's the sort of context within  
 21 which we would have been trying to work out how you  
 22 could put the two together in a way that would  
 23 maximise your chance of actually having an antibody  
 24 molecule that worked.  
 25 Q Who was doing this work at this

1 time?

2 MR VEZEAU: What work? I object to

3 the question for lack of foundation.

4 MR SKILTON: Counsel, I have never

5 had a trouble rephrasing a question.

6 MR VEZEAU: Thanks.

7 MR SKILTON: And I don't need

8 speeches or commentary.

9 MR VEZEAU: I stated an objection,

10 John. It wasn't speeches.

11 BY MR SKILTON:

12 Q Who was it that was considering

13 these issues at that time?

14 A Primarily, John McCafferty and

15 myself.

16 Q What did you do in connection with

17 considering these issues at that time?

18 A Well, both John and myself would

19 have been making sure we were aware of all the

20 prior art that could help us. As a scientist, you

21 need to know what people have done. I would have

22 done that.

23 John and I would have examined --

24 and, again, this is my belief; I have no explicit

25 notes of this period -- we would have examined the

1 sequences of various phage that could be useful.

2 We would also, no doubt, have been examining other

3 insertion sites in other, as I said, bacteria.

4 Q Was any experiment done?

5 A No.

6 Q Was any laboratory work done?

7 A Not as far as I can recall.

8 Q The next sentence in context reads

9 -- and I'll read it again: "John McCafferty and

10 myself devised a potential solution and made the

11 key oligonucleotides during the Autumn of 1989."

12 What did you mean by "and made the

13 key oligonucleotides during the autumn of 1989"?

14 A I'm not clear here whether I'm

15 referring to physically made, made by design?

16 Q What did you mean?

17 A I don't know. It reads as if

18 physically we made them.

19 Q What were the key oligonucleotides?

20 A I have no idea at the moment. I

21 have no idea what oligonucleotides were actually

22 used in the key experiment at the time. I would

23 need to go through quite extensive discussions with

24 John with his notebook to work on the sequences of

25 those oligonucleotides which here were defined as

1 "key".

2 Q Do you understand this sentence to

3 say that he had, at least, worked out the sequences

4 of these proteins?

5 A Yes, I would agree that was

6 a reasonable assumption.

7 Q And would you agree that he likely

8 would have had a book or record to reflect his work

9 on these sequences?

10 MR VEZEAU: Objection.

11 BY MR SKILTON:

12 Q At that time?

13 MR VEZEAU: Foundation.

14 BY MR SKILTON:

15 Q Dr Chiswell?

16 THE WITNESS: Well, in light of the

17 objection, do I answer the question, Tim?

18 MR VEZEAU: Yes. I object for the

19 record. If you can answer the question, you

20 should.

21 THE WITNESS: Okay, fine. Can we

22 repeat it, please?

23 MR SKILTON: (To the court reporter)

24 Would you read it back, please?

25 COURT REPORTER: "Q. And would you

1 agree that he likely would have had a book or

2 record to reflect his work on these sequences" --

3 THE WITNESS: I think it's likely --

4 COURT REPORTER: -- "at that time?"

5 Sorry, Mr VezEAU objected, then

6 Mr Skilton continued "at that time?"

7 THE WITNESS: I agree he would be

8 likely to have written it down.

9 BY MR SKILTON:

10 Q Now, it's true, is it not, that in

11 the autumn of 1989 Dr McCafferty was an employee of

12 Amersham?

13 A That's correct.

14 Q It's true, is it not, that the work

15 that you have just described with reference to

16 sequence determination was done while he was an

17 employee of Amersham?

18 MR VEZEAU: I'm going to object to

19 that question as being ambiguous.

20 MR SKILTON: You may answer the

21 question.

22 THE WITNESS: Is that true, Tim,

23 I may answer the question?

24 MR VEZEAU: Yes. I believe the

25 question is ambiguous. If you understand the



Page 49

Page 51

1 question and can answer it, please do.  
 2 THE WITNESS: Well, it's a question  
 3 of what way we define "work" really. He was paid  
 4 a salary by Amersham?  
 5 BY MR SKILTON:  
 6 Q Yes.  
 7 A Salary doesn't cover 24 hours a day,  
 8 so I'm not quite sure when this work would have  
 9 been done; whether it would have been done in  
 10 John's own time, my own time.  
 11 Q When Dr McCafferty joined the  
 12 Cambridge lab, is it true that he had already done  
 13 the key sequencing work as described in this  
 14 sentence?  
 15 MR VEZEAU: I'm going to object to  
 16 that question as lacking a proper foundation.  
 17 MR SKILTON: Well, let me read the  
 18 reference point so there is no ambiguity.  
 19 BY MR SKILTON:  
 20 Q When Dr McCafferty joined Cambridge  
 21 Antibody Technology he had done, had he not, the  
 22 sequencing of the key oligonucleotides?  
 23 MR VEZEAU: I'm going to object to  
 24 that question as lacking a proper foundation.  
 25 THE WITNESS: I think the words

1 A Well, you're implying that he did  
 2 work at Amersham.  
 3 Q Yes.  
 4 A I'm saying I have recollection he  
 5 did work at Amersham. It's a distinction between  
 6 work at Amersham and work at the time he was paid  
 7 for by Amersham.  
 8 Q Without regard to whether it was on  
 9 his own time, let's just talk about what he brought  
 10 with him with reference to this project when he  
 11 first joined CAT. What did he bring with him?  
 12 A I cannot recall exactly what he  
 13 would bring with him.  
 14 Q Was he under any kind of assignment  
 15 obligations to Amersham, Dr Chiswell?  
 16 A I'm not quite sure I understand what  
 17 you mean by "assignment obligations."  
 18 Q First, let's go to the sentence, and  
 19 then I'll work backwards.  
 20 When he joined Cambridge,  
 21 Dr Chiswell, John McCafferty was required to sign  
 22 a document described as form Y. Do you understand  
 23 that?  
 24 MR VEZEAU: Objection. Lack of  
 25 foundation.

Page 50

Page 52

1 you're using are probably confusing me.  
 2 There was no sequencing of  
 3 oligonucleotides in the sense that they were  
 4 sequenced. The work we were doing at the time was  
 5 trying to device a particular oligonucleotide that  
 6 would be helpful in the work, so its...  
 7 BY MR SKILTON:  
 8 Q All right. Did he bring with him  
 9 actual oligonucleotides, the chemicals?  
 10 A I can't recall.  
 11 Q How would we find out?  
 12 A You would look at John's lab book,  
 13 or I would look at John's lab book.  
 14 Q What if that lab notebook doesn't  
 15 contain the work that he had done while he was at  
 16 Amersham? Let me rephrase the question.  
 17 Are you aware of whether or not the  
 18 work that he did at Amersham is contained in  
 19 a document?  
 20 MR VEZEAU: I'm going to object to  
 21 your question as lacking a proper foundation and  
 22 referring to work he did at Amersham.  
 23 BY MR SKILTON:  
 24 Q Subject to that objection,  
 25 Dr Chiswell?

1 BY MR SKILTON:  
 2 Q Do you understand that?  
 3 A I think explicitly I don't think the  
 4 question was phrased so I could understand it. He  
 5 didn't sign form Y when he joined Cambridge.  
 6 Q When did he sign form Y?  
 7 A Form Y, I believe, is a Medical  
 8 Research Council form.  
 9 Q And when he joined the MRC lab he  
 10 was required to sign form Y, to your knowledge,  
 11 isn't that so?  
 12 MR VEZEAU: I'm going to object to  
 13 that question. There's no foundation for him  
 14 having joined the MRC lab.  
 15 BY MR SKILTON:  
 16 Q You may answer the question.  
 17 A John was an employee of Cambridge  
 18 Antibody. He was working in -- at times he was  
 19 working in the laboratories of the Medical Research  
 20 Council.  
 21 Q Was he required to sign a form Y  
 22 during that time?  
 23 A I believe he signed a form Y.  
 24 Q What did that form Y say,  
 25 Dr Chiswell?

Page 53

Page 55

1 A I have not seen the document since  
 2 he signed it so I ...  
 3 I believe it was a general document  
 4 signed by all visiting workers at the Medical  
 5 Research Council lab, but it's belief rather than  
 6 absolute certain knowledge.  
 7 Q And what, to your understanding, did  
 8 that document require?  
 9 A I mean, I haven't actually reviewed  
 10 the document so I probably couldn't answer the  
 11 question.  
 12 Q Did you ever sign such a document  
 13 yourself?  
 14 A I have no recollection, and I've  
 15 never worked in the Medical Research Council labs  
 16 at the time.  
 17 Q Well, you've read the paragraph as  
 18 a whole, so let me put on the record what it is I'm  
 19 alluding to in my questions, and I'll read the  
 20 sentence that begins: "John signed a form Y and  
 21 worked in the LMB..." -- I'm having trouble reading  
 22 the next word.  
 23 MR VEZEAU: "Between".  
 24 THE WITNESS: "Between".  
 25 BY MR SKILTON:

Page 54

1 Q "...between..." -- thank you --  
 2 "...January and May of 1990." This document is  
 3 hard to read.  
 4 Why did you include that statement  
 5 in this history?  
 6 A I'm trying to be explicit about  
 7 the history here so I would expect that to be  
 8 a statement of fact.  
 9 Q Was it significant to you, in making  
 10 the case that you were making in this document,  
 11 that during that period he, John McCafferty, had  
 12 signed form Y?  
 13 A Yes.  
 14 Q Why was it significant?  
 15 A Because the MRC would have required  
 16 that.  
 17 Q Did that form Y, to your  
 18 understanding, require McCafferty to assign what  
 19 it is he had worked on and anything that he had  
 20 invented at that time when he was in the MRC lab to  
 21 the MRC?  
 22 A Well, that's a very broad statement.  
 23 Q Yes.  
 24 A To be honest with you, I have no  
 25 idea since I haven't seen the document.

1 Q Did you see it at the time that you  
 2 were writing this document?  
 3 A I believe I would have seen it  
 4 before John signed it, but I can't recall having  
 5 seen a form Y at that time.  
 6 Q This document that we just read, and  
 7 the sentence that I just read, in no way refreshes  
 8 your recollection as to what the content of form Y  
 9 was, is that correct?  
 10 A It just says "signed form Y". It's  
 11 not more explicit than that.  
 12 Q And it doesn't in any way refresh  
 13 your recollection as to what form Y contained?  
 14 A No.  
 15 Q Is that correct?  
 16 A Not in the explicit sense that  
 17 you're talking. I can say in a general sense.  
 18 Q What in the general sense, to your  
 19 understanding at this time, did form Y do?  
 20 A It was a form that the MRC required  
 21 anyone working in their lab to sign.  
 22 Q And you don't recall what the terms  
 23 were?  
 24 A Not explicitly.  
 25 Q You don't recall whether or not one

Page 56

1 of the terms required the worker who signed such  
 2 a form to assign any inventive work to MRC, is that  
 3 correct?  
 4 A That's correct.  
 5 MR SKILTON: Again, I make my  
 6 request for form Y and do so prior to ever  
 7 concluding this deposition.  
 8 THE WITNESS: Can I request, since  
 9 you are pausing there, that we have a break?  
 10 MR SKILTON: Yes, we certainly can.  
 11 Let's do it.  
 12 VIDEOGRAPHER: We're going off the  
 13 record. The time is 10.17.  
 14 (A short recess at 10.17 am)  
 15 (Resumed at 10.37 am)  
 16 VIDEOGRAPHER: We're back on the  
 17 record. The time is 10.37.  
 18 BY MR SKILTON:  
 19 Q Dr Chiswell, we're working our way  
 20 through exhibit 9 from the Winter deposition, and  
 21 we're on 2.1, history.  
 22 Let me read a sentence we had  
 23 partially talked about and then go on. "John  
 24 signed form Y and worked in the LMB..." Can you  
 25 read that word for me?

1 MR VEZEAU: "Between".  
 2 MR SKILTON: Thank you.  
 3 BY MR SKILTON:  
 4 Q "...between January and May of  
 5 1990."  
 6 That's your understanding, in fact,  
 7 that Dr McCafferty had worked in the laboratory of  
 8 molecular biology, which is part of MRC, during  
 9 this period?  
 10 A Yes.  
 11 Q Then the next sentence reads: "The  
 12 materials he brought with him" --  
 13 MR VEZEAU: "Bought".  
 14 BY MR SKILTON:  
 15 Q I'm sorry. It is "bought", isn't  
 16 it?  
 17 A It is, yes.  
 18 Q Do you believe that word should have  
 19 been "brought"?  
 20 A I make no comment. The spell  
 21 checkers in those days probably wouldn't have  
 22 distinguished the two.  
 23 Q Does it read in context, to your  
 24 belief as the author, "brought"?  
 25 A That's a reasonable assumption.

1 Q "The materials he brought with him  
 2 allowed him to build the phage that was the key to  
 3 the eventual success of the project."  
 4 A Yes.  
 5 Q Did I correctly read the sentence?  
 6 A Yes.  
 7 Q What materials did he bring with  
 8 him?  
 9 A I don't know because you're talking  
 10 back quite a long time period there where he's  
 11 bringing materials; so between January and May of  
 12 1990. So I don't know.  
 13 Q Do you read that sentence as  
 14 referring to materials that he brought with him  
 15 during the period of January to May? Or prior to  
 16 that period?  
 17 A It only refers to the period of  
 18 January to May. It doesn't refer to prior to that  
 19 period. So that's the period it refers to.  
 20 Q So your reading of this sentence is  
 21 that that sentence refers to what he brought with  
 22 him between January and May and not before? Is  
 23 that what you're --  
 24 A He wasn't working there before.  
 25 Q Well, my question is: Isn't this

1 sentence referring to the materials he brought with  
 2 him prior to him coming to the laboratory?  
 3 A I don't think it's actually that  
 4 constructed, so that is what it says.  
 5 Q You don't --  
 6 A It wouldn't exclude that, but it  
 7 also includes the period from January to May.  
 8 Q Did he bring materials with him  
 9 prior to commencing his work at the LMB?  
 10 A He brought something with him  
 11 because it says earlier in the document we had this  
 12 discussion about the potential solution and made  
 13 the key oligonucleotides.  
 14 Q Isn't this your argument, that you  
 15 and McCafferty independently invented substantial  
 16 parts of this work before he ever started at the  
 17 MRC lab?  
 18 A No.  
 19 Q That's not your argument?  
 20 A Can you give me a second?  
 21 MR VEZEAU: And if you need to read  
 22 the entire section, you should do so.  
 23 MR SKILTON: Please do so.  
 24 THE WITNESS: Because you used the  
 25 word invented, so I need to just review the

1 document in that context. (Witness reviewed the  
 2 document) I've re-read the history paragraph,  
 3 which is what I wanted to do. And perhaps if you  
 4 --  
 5 MR SKILTON: (To the court reporter)  
 6 Could you read --  
 7 THE WITNESS: Can we have the  
 8 question read back?  
 9 MR SKILTON: Please.  
 10 COURT REPORTER: The last question  
 11 was:  
 12 "Q. That's not your argument?"  
 13 THE WITNESS: Mmmm.  
 14 COURT REPORTER: "Q. Isn't this  
 15 your argument, that you and McCafferty  
 16 independently invented substantial parts of this  
 17 work before he ever started at the MRC lab?"  
 18 "A. No."  
 19 And then --  
 20 THE WITNESS: I think that was  
 21 a good answer.  
 22 MR VEZEAU: Is there a follow up,  
 23 Thelma.  
 24 COURT REPORTER: There was.  
 25 MR VEZEAU: Could you read it?

1 COURT REPORTER: "Q. That's not  
2 your argument?"  
3 And then the witness asked to be  
4 given a second.  
5 MR VEZEAU: John, do you want to  
6 restate your question?  
7 MR SKILTON: I'll continue. I want  
8 to be sure the witness is on the same page with  
9 me.  
10 BY MR SKILTON:  
11 Q This history was attempting to  
12 establish the independent contribution of yourself  
13 and McCafferty, at least in part, isn't that so,  
14 Dr Chiswell?  
15 A It's meant to be a history of what  
16 was actually happening at the time.  
17 Q And part of your history was to make  
18 an argument that you and McCafferty had made a  
19 substantial contribution prior to your ever coming  
20 to -- his ever coming to the MRC lab, isn't that  
21 right?  
22 MR VEZEAU: Objection. Lack of  
23 foundation.  
24 THE WITNESS: You're actually, sort  
25 of, interpreting an argument. I'm saying this is

1 what we wrote at the time. It's designed to be a  
2 writing down of what actually happened. It's not  
3 a document saying, "This is the invention. That's  
4 the invention. Who made it. Who didn't." It's  
5 actually, "This is what actually what happened."  
6 BY MR SKILTON:  
7 Q And you were concerned that you were  
8 going to be confronted with an argument by MRC  
9 that they were entitled to the entirety of this  
10 invention because of an assignment requirement that  
11 McCafferty had when he first started to work in  
12 their lab?  
13 A We never had any fear the MRC would  
14 say this was their invention; solely their  
15 invention.  
16 Q Now, was it your concern that they  
17 would be claiming more of the invention than you  
18 felt they would be entitled to?  
19 MR VEZEAU: I don't understand that  
20 question. I object on that basis. It's indefinite  
21 and ambiguous.  
22 MR SKILTON: Let me say, first of  
23 all, your understanding is never an issue in this  
24 case. You can object on traditional grounds  
25 permitted under the Federal Rules of Civil

1 Procedure.  
2 MR VEZEAU: My understanding is  
3 important though, John, in order to state an  
4 objection.  
5 MR SKILTON: I think you can state  
6 the objection, but it's irrelevant whether you  
7 understand something or not.  
8 MR VEZEAU: Fine.  
9 MR SKILTON: (To the witness) Now,  
10 do you want to read the question back to the  
11 witness, please?  
12 MR VEZEAU: I won't, but may be  
13 Thelma will.  
14 MR SKILTON: I asked Thelma to do  
15 it, I think the record should reflect.  
16 COURT REPORTER: "Q. Was it your  
17 concern that they would be claiming more of the  
18 invention than you felt they would be entitled to?"  
19 THE WITNESS: I'm not sure I would  
20 have had a concept of what the invention was at the  
21 time, but I had no concern that the MRC would try  
22 and claim it all. I'm not sure about the question  
23 about how much they were entitled to, as I say.  
24 BY MR SKILTON:  
25 Q You had no idea what the invention

1 was at that time? Is that what you just said,  
2 Dr Chiswell?  
3 A "Invention" is a legal word, and I  
4 don't have the qualifications or the understanding  
5 to say what legally "invention" actually is.  
6 Q Well, let's look to the sentence and  
7 see whether it has meaning in the context of this  
8 sentence. I'll read it and it starts with the  
9 paragraph that's just above 2.3:  
10 "Greg and I have discussed the  
11 history with Sir Aaron and have agreed that the  
12 invention was by John and myself..."  
13 Did you write that?  
14 A I'm sure I did.  
15 Q What did you mean in that sentence  
16 by the word "the invention"?  
17 A Well, I don't think we talk in here  
18 about a legal definition of the invention, since  
19 actually -- what it actually, I believe it refers  
20 to is displaying, in this case, an antibody, which  
21 is an example of a functional biological molecule  
22 on the surface of the phage.  
23 Q And that's what you meant in this  
24 sentence by "the invention"?  
25 A Yes, but I would say this was

Page 65

Page 67

1 probably a loose use of the word "invention".  
 2 Q It was your use?  
 3 A Yes, my use, as a layman.  
 4 Q Yes. And it was that invention that  
 5 you claimed that you and John made, correct?  
 6 A Yes, but I think you have to read  
 7 the rest of the sentence as well, because it goes  
 8 on to say: "...the MRC have a share of the  
 9 intellectual property as well as the authorship of  
 10 the scientific papers." So I'm getting a bit loose  
 11 with the terms here.  
 12 Q Well, you may read whatever part of  
 13 the sentence you will, but I'm going to read the  
 14 one that I want you to comment on.  
 15 "Greg and I have discussed the  
 16 history with Sir Aaron and have agreed that the  
 17 invention was made(sic)" --  
 18 MR VEZEAU: No, it doesn't say that.  
 19 BY MR SKILTON:  
 20 Q "...that the invention was by John  
 21 and myself." Did I correctly read that?  
 22 A You correctly read that. You didn't  
 23 correctly read the next phrase, "...but that the  
 24 MRC have a share of the intellectual property."  
 25 Q All right, what do you mean by that?

Page 66

1 A I don't know, to be honest. What  
 2 I'm saying is, I'm not using the word "invention"  
 3 and "intellectual property" in, sort of, anything  
 4 other than a layman's sense of the word.  
 5 Q Well, it's true, is it not, that at  
 6 this time you had filed a patent application,  
 7 a disclosure, exhibit 14 that's in front of you?  
 8 A Exhibit 14. Exhibit 14, the  
 9 priority document?  
 10 Q Yes.  
 11 A That was filed, yes.  
 12 Q In that document we saw, Chiswell 2,  
 13 that the inventors listed are you and John,  
 14 correct?  
 15 A That is not --  
 16 MR VEZEAU: Objection. No  
 17 foundation for that.  
 18 BY MR SKILTON:  
 19 Q Would you look at Chiswell 2,  
 20 please?  
 21 MR VEZEAU: I am aware of Chiswell  
 22 2. You said --  
 23 MR SKILTON: I don't want to argue  
 24 with you. I asked the witness.  
 25 MR VEZEAU: You said "in that

1 document". You have not established that.  
 2 MR SKILTON: (To the court reporter)  
 3 Read this question back, please.  
 4 COURT REPORTER: "Q. In that  
 5 document we saw, Chiswell 2, that the inventors  
 6 listed are you and John, correct?"  
 7 BY MR SKILTON:  
 8 Q Is that correct?  
 9 A I want to be clear here. There's  
 10 two documents I have in front of me.  
 11 Q All right.  
 12 A One is Chiswell 2 and one is Winter  
 13 14.  
 14 Q Right, and --  
 15 A I don't have any relation as between  
 16 the two.  
 17 Q You don't have any relation?  
 18 A Well, Chiswell 2 actually says  
 19 inventors Chiswell, McCafferty.  
 20 Q Yes.  
 21 A Exhibit 14, Winter 14, is the actual  
 22 priority document. So what's your question?  
 23 Q Do you have any understanding  
 24 whether there is a relationship between the two  
 25 documents?

Page 68

1 A There's probably a relationship  
 2 between the two.  
 3 Q What is your understanding of that  
 4 relationship?  
 5 A My understanding is this is the --  
 6 the Winter 14 is the priority document actually  
 7 filed with the patent office, and you will note on  
 8 that, that in section IV on page 00349, under  
 9 Inventor, it says, "A statement on Patents Form  
 10 will be furnished." I have no idea what that form  
 11 is, but there is no inventor listed.  
 12 This is a document, on Mewburn  
 13 Ellis's headed notepaper, which lists inventors as  
 14 Chiswell and McCafferty.  
 15 Q And bears a date? Do you see  
 16 a date?  
 17 A There's a date filed.  
 18 Q Yes.  
 19 A And a case number.  
 20 Q And the date filed is what?  
 21 A 10th July 1990. And, as you said,  
 22 there is a reference to... This obviously refers,  
 23 within Mewburn Ellis's file, as a document relating  
 24 to this priority document.  
 25 Q Now --

Page 69

Page 71

1 A I want to be clear; I don't believe  
 2 this was filed. It's not part of the priority  
 3 document. They are two separate documents.  
 4 Q All right, well we'll work with that  
 5 tomorrow.  
 6 A Shall I put these down?  
 7 Q Sure.  
 8 At the time that this document, now  
 9 referring you back to exhibit 9, the July 30th 1990  
 10 cover document with the July 27 memorandum, is it  
 11 true that no representative of the MRC had seen any  
 12 patent filing made with respect to McCafferty's  
 13 work?  
 14 A There's a couple of negatives. Can  
 15 I get that, sort of, question straight?  
 16 Q I'll try again. To your knowledge,  
 17 is it not true -- let me try again.  
 18 Did Dr Winter see exhibit 14 before  
 19 it was filed?  
 20 A I would expect that Dr Winter would  
 21 have seen earlier drafts that led to Winter 14.  
 22 I can't be explicit whether he actually saw that  
 23 particular draft.  
 24 MR SKILTON: Mark this, please.  
 25 (Exhibit 3 marked for identification)

Page 70

1 THE WITNESS: Shall I start reading  
 2 this now? Or do you want to ask a question first?  
 3 MR SKILTON: You certainly may. Go  
 4 ahead. (Witness reviewed the document) Tell me  
 5 when you've completed your reading.  
 6 THE WITNESS: Nearly. (Witness  
 7 continued to review the document) Okay.  
 8 BY MR SKILTON:  
 9 Q I've placed in front of you exhibit  
 10 3, which bears the Bates stamp numbers -- and I'm  
 11 going to read them separately -- CM040138, 139, 140  
 12 and 141. The cover sheet appears to be a copy of  
 13 a letter dated August 14 from you to Martin Wood.  
 14 Do I correctly describe that?  
 15 A Yes.  
 16 Q Do you recall having written that  
 17 letter?  
 18 A Yes.  
 19 Q Attached thereto and sent therewith,  
 20 apparently, are minutes of meeting at LMB on  
 21 Tuesday, August 7th 1990, which minutes purport to  
 22 have been written by you and bear the date at the  
 23 last page of August 10, 1990. Do I correctly  
 24 describe that document?  
 25 A Just let me check the date.

1 (Witness reviewed the document) Yes.  
 2 Q Did you prepare these minutes?  
 3 A Yes.  
 4 Q As of the time of these minutes --  
 5 strike that.  
 6 As of August 7, and the meeting that  
 7 you record on August 7, did the MRC, or any  
 8 individual at MRC, have the patent filing relating  
 9 to the McCafferty work?  
 10 A The patent filing was, look at the  
 11 dates -- which is in this document here?  
 12 (Indicating)  
 13 Q Yes.  
 14 A Exhibit 14.  
 15 Q Yes, exhibit 14, from Winter.  
 16 A And this was filed when?  
 17 Q July 10th.  
 18 A So this was filed July 10th. It's  
 19 possible, but I wouldn't know whether the actual  
 20 filing would have been copied to either CAT or Greg  
 21 Winter or Martin Wood, within the lab, that it had  
 22 been filed. I don't know when people received the  
 23 actual one that was filed.  
 24 Q Can you tell us what the following  
 25 sentence means in reference to that question? And

Page 72

1 I'm reading from the second paragraph on page 139:  
 2 "DJC..." -- that's you, is it not?  
 3 A Yes.  
 4 Q "...agreed to provide a summary of  
 5 the patent that had been filed." What were you  
 6 here saying?  
 7 A Well, presumably, I agreed to  
 8 provide some sort of summary of that for Martin  
 9 Wood.  
 10 Q Is it true that at that time Martin  
 11 did not have the actual patent?  
 12 A I don't know.  
 13 Q Is it true that, in fact, it was the  
 14 position of Cambridge that that was a confidential  
 15 filing and the property of Cambridge at that time?  
 16 A I can't recall that being our  
 17 position, at any time, with the MRC.  
 18 MR SKILTON: (To the court reporter)  
 19 Would you read the last answer back, please?  
 20 COURT REPORTER: "A. I can't recall  
 21 that being our position, at any time, with the  
 22 MRC."  
 23 BY MR SKILTON:  
 24 Q Dr Chiswell, I'm going to place in  
 25 front of you a document marked as exhibit 13 from

Page 73

Page 75

1 the Winter deposition. That appears to be an  
2 August 21, 1990 document from Diana Dunstan to  
3 yourself.

4 (Same handed) Is this one of the  
5 documents you reviewed in preparing for today's  
6 deposition?

7 A Let me read it first and then I'll  
8 say.

9 Q All right.

10 A I'll answer that question.

11 Q Sure.

12 A (Witness reviewed the document)  
13 Okay.

14 Q Is this one of the documents you  
15 reviewed in preparation for this deposition?

16 A I can't recall it explicitly but  
17 it's possible. Maybe if I ask my counsel.

18 (To Mr Vezeau) Did we discuss this  
19 last week?

20 MR VEZEAU: As far as what we  
21 discussed, that would be privileged. So either you  
22 recall or you don't recall. Our discussions are  
23 privileged.

24 THE WITNESS: The contents within  
25 here are familiar to me based on my review of the

1 that time, correct?

2 A I'm not sure about distinct  
3 arguments. I would say it's a discussion as to  
4 what benefits ultimately people get out of it. How  
5 that's shared.

6 Q What was the position of Cambridge  
7 Antibody Technology as to what share the LMB or MRC  
8 was entitled to Dr Chiswell?

9 A Well, as you saw in the -- which is  
10 it? -- the first document, so that would be  
11 document 3, the position we were writing down was  
12 that the MRC had a 25 per cent ownership. So that,  
13 to some extent, would have been discussed with  
14 Diana Dunstan and Martin Wood in that meeting.

15 Q For the reasons you gave in that  
16 earlier memorandum?

17 A It would be some negotiating  
18 document.

19 Q But you stated the reasons why you  
20 felt it would be equitable for them to get a 25 per  
21 cent share, isn't that a correct statement?

22 A Yes.

23 Q Now, you've read exhibit 13?

24 A Yes.

25 Q I'll read to you one sentence and

Page 74

Page 76

1 documents. I assume this is the document.

2 BY MR SKILTON:

3 Q In looking with me to a related  
4 document, exhibit 3, is that amongst the group of  
5 documents that you reviewed?

6 A Yes.

7 Q Now, you've had a chance to review  
8 this document?

9 A Which document?

10 Q What was happening through this  
11 course of --

12 A Which document?

13 Q I'm sorry. Exhibit 13, please.

14 A Okay.

15 Q What was happening through this  
16 series of documents that we're looking at was an  
17 effort here to determine whether MRC would have  
18 a 25 per cent ownership or a 50 per cent ownership  
19 of the McCafferty patent. That's your  
20 understanding, isn't it?

21 A Or 75 per cent depending on... It's  
22 essentially what is proportion of ownership.

23 Q And different arguments were being  
24 made on behalf of Cambridge as distinct from the  
25 arguments that were being made on behalf of MRC at

1 ask you if you understood it when you read it.

2 "Incidentally, since there is this  
3 difference of view, it may well be necessary for us  
4 to see the complete filing - I understand the basis  
5 for your reluctance to do this but I think it is  
6 desirable perhaps especially in view of  
7 Dr McCafferty's position as a visiting worker in  
8 the LMB when this work was carried out."

9 Did you understand that sentence  
10 when you read it?

11 A I understand it today.

12 Q It's true, is it not, that as  
13 of this date, August 21, the MRC and the LMB  
14 representatives had not seen the complete filing?

15 A The implication from what Diana  
16 Dunstan wrote would be that they hadn't seen the  
17 complete filing.

18 Q And they hadn't any idea as to who  
19 the inventors were, as claimed in Chiswell 2, to  
20 the best of your knowledge, isn't that so?

21 A I'm not sure that what's stated in  
22 Chiswell 2 is claiming any inventors.

23 Q I'll read you another sentence from  
24 this document, and take your time if I'm pulling it  
25 out of context; take your time to put it back in.

Page 77

Page 79

1 "I understand, for example, that  
 2 there is yet no formal agreement about the  
 3 'inventors' to be named on the patent application  
 4 - this therefore needs to be discussed further in  
 5 the light of the details of the contribution made  
 6 by each of those concerned."  
 7 Did I read that correctly?  
 8 A You appear to have done, yes.  
 9 Q Was there at this time, August 21,  
 10 1990, any agreement as to who were the inventors to  
 11 be named on the patent application?  
 12 A There is yet no formal agreement, is  
 13 what it says, and I think that's a reasonable  
 14 statement.  
 15 Q Was there an investigation  
 16 thereafter to determine who should be named on the  
 17 patent, Dr Chiswell?  
 18 A "Investigation" is an odd word.  
 19 Q Maybe I'm mis-using it. Was there  
 20 any attempt to determine who should be named on the  
 21 patent?  
 22 A I can't recall any substantive  
 23 account -- sorry, substantive attempt at that time  
 24 to determine precisely who the inventors were and  
 25 what their shares were.

1 any notes of that meeting?  
 2 A Yes, it has been looked for.  
 3 Q And you found none?  
 4 A I found none.  
 5 Q You looked personally for them?  
 6 A I don't believe I looked personally  
 7 for them.  
 8 Q Who did look on your behalf?  
 9 A I would have asked my secretary, Meg  
 10 Wilson.  
 11 Q You've made no personal search for  
 12 documents in this case, is that correct?  
 13 A I've made no personal search, that  
 14 I can recall, for that document.  
 15 Q Well, let me ask it. What personal  
 16 searches for documents have you made in this case,  
 17 Dr Chiswell?  
 18 A Personal searches. I have gone  
 19 through the documents that I had available to me in  
 20 my room, and in my office at CAT, which actually is  
 21 where the early document, the green book, appeared  
 22 from.  
 23 I don't believe I've personally  
 24 searched the CAT filing systems for documents  
 25 related to it.

Page 78

Page 80

1 Q Was there ever any such attempt to  
 2 your knowledge, Dr Chiswell?  
 3 A Yes, that was done, I believe, when  
 4 we filed the PCT application.  
 5 Q Were you -- I'm sorry, were you done  
 6 with your answer?  
 7 A Yes.  
 8 Q Were you a part of that determination?  
 9 A I believe I was.  
 10 Q Well, that's an uncertain answer.  
 11 Have you no specific recall?  
 12 A I have recall of discussions I had  
 13 with Greg Winter and I believe with Ian Armitage,  
 14 and I'm not sure whether Caroline O'Brien was  
 15 involved at that time about this point.  
 16 Q Was it in the form of a meeting or  
 17 meetings, plural?  
 18 A Probably meetings, plural, but  
 19 certainly there was probably one main meeting and  
 20 Ian Armitage is present.  
 21 Q Did you make any notes of that  
 22 meeting?  
 23 A I have no notes available to me.  
 24 I can't recall making notes.  
 25 Q Did you look to see whether you had

1 Q Let's ask about exhibit 13. It's  
 2 the one we just looked at. Do you know where this  
 3 document was?  
 4 A No.  
 5 Q Was this from your file?  
 6 A I've no idea.  
 7 Q Did you keep a file?  
 8 A We would have kept a file. We would  
 9 have kept a file, yes.  
 10 Q And who was the custodian of that  
 11 file that this document likely would have been in,  
 12 if you know?  
 13 A At what time period?  
 14 Q August 21, 1990.  
 15 A I would have thought it was probably  
 16 my responsibility to file this document at that  
 17 time.  
 18 Q What kind of a file did you put them  
 19 in?  
 20 A I can't recall.  
 21 Q Do you know whether that was a file  
 22 that was produced to counsel?  
 23 A I've no idea since I didn't  
 24 personally search for it.  
 25 Q Now, having seen the documents that



Page 81

Page 83

1 we've just gone through, does that refresh your  
2 recollection that, prior to August 21, 1990,  
3 Dr Chiswell, no representative of the MRC had  
4 actually seen the filing that had been made,  
5 exhibit 14?

6 A Well, as I said, I don't know when  
7 the copy of that filing, which was filed in July,  
8 would have gone to the formal representatives of  
9 the MRC or Greg Winter.

10 Q Do you read these documents to say  
11 that, as of the date of August 21, 1990, they had  
12 not seen a copy of that filing?

13 A The final filing?

14 Q Yes.

15 A I would say that it... She used the  
16 phrase, "it may well be necessary for us" -- that's  
17 the MRC -- "to see the complete filing." So that  
18 implies that Diana, or possibly Martin, did not  
19 have a full copy at that time; and this was one  
20 month after it was filed.

21 Q Did you provide them with a summary  
22 of that filing prior to that time?

23 A I'm not sure what I provided them  
24 with. It said in the minutes that I would provide  
25 them with a summary. I can't recall actually

1 is, without having read it thoroughly?

2 A From the detailed explanation, I've  
3 said it's an agreement between Cambridge Antibody  
4 and the Medical Research Counsel. It covers  
5 certain aspects of the application we're talking  
6 about. Precisely what it covers, I think I'd have  
7 to read it for that.

8 Q I will say that the number that  
9 appears under the "Witnesseth whereas" clause is  
10 the same, if you'll see --

11 A No, no. Yes, I mean it certainly  
12 pertains to that application.

13 Q But as you sit here today you don't  
14 have a specific recollection of it?

15 A No. I mean, I have whatever  
16 recollection you want of it.

17 Q Who is it signed by?

18 A As I said, it's signed by myself, as  
19 general manager of Cambridge Antibody. It's signed  
20 by Martin Wood, head of technical transfer of the  
21 Medical Research Council. Hang on.

22 Q Now, this document --

23 A No, no, hold it. Can you just hang  
24 on a second because I just want to go through it?  
25 (Witness reviewed the documents) There's actually

Page 82

Page 84

1 providing them with a summary.

2 Q And you don't believe there is any  
3 such document in existence today?

4 A I think it would be difficult to  
5 find a summary. I'm not aware that I did it, but  
6 here you're talking in 1990, several years away.

7 Q I'm going to place in front you a  
8 document which bears the exhibit number Jackson 10  
9 and ask you whether you were at all familiar with  
10 this document?

11 A Define "familiar". I signed the  
12 agreement. I've no doubt I negotiated the  
13 agreement. I haven't reviewed it recently.

14 Q Can you identify it? What is it?

15 A It's an agreement between CAT and  
16 the Medical Research Council dated 1st August,  
17 1991.

18 Q I'm going to read -- what's the date  
19 of the document as you read it, by the way?

20 A Made as the 1st day of August 1991.

21 Q And it bears a date of signature by  
22 yourself, does it?

23 A Yes. My signature is signed 22nd  
24 July '91 and by Martin Wood, 26th June '91.

25 Q Can you explain what this document

1 several documents here, so can we, sort of, start  
2 from the beginning again?

3 Q Yes, let's start from the beginning,  
4 please.

5 A If we turn over the page --

6 Q Let me first give the Bates stamp  
7 numbers on the pages and then you can continue.

8 A So we start -- sorry, you want to  
9 give the Bates?

10 Q Yes. The first page of the  
11 document, exhibit 10, is C013070 and appears to go  
12 through 88.

13 A When --

14 MR VEZEAU: Excuse me, what are you  
15 having Dr Chiswell do?

16 MR SKILTON: Dr Chiswell wants to  
17 break it up into its separate components, and  
18 I said go ahead and do it.

19 MR VEZEAU: You agree?

20 THE WITNESS: Yes, because there's  
21 more than one agreement here, by the looks of it,  
22 so I just wanted to...

23 We start out with an administrative  
24 agreement which is dated 1st August. It deals with  
25 the patent application that we're talking about.

Page 85

Page 87

1 And that goes through to 013076. And that is  
2 signed by myself on 1st August '91 and by Martin  
3 Wood on 24th July '91, which perhaps explains the  
4 effective date being 1st August.

5 BY MR SKILTON:

6 Q And I see that John McCafferty  
7 signed too, this agreement?

8 A Yes. We didn't have many people  
9 available at CAT at the time to witness.

10 Then we have a schedule to the  
11 administrative agreement, which date is I'm not  
12 sure what it is. Obviously it's a schedule to the  
13 agreement.

14 The schedule appears, on the face of  
15 it, to be a sort of draft for a licence agreement.  
16 Presumably CAT licensed it to a third party, but  
17 I haven't reviewed it in particular detail.

18 We then move on to page 013086,  
19 which refers to a specific application which, in  
20 the title, appear to be production and sale of  
21 research kits for phage antibody screening, which  
22 is signed by myself on 22nd July '91, and Martin  
23 Wood on 26th June '91.

24 That's why I wanted to break them  
25 down. In my earlier answer I may have confused the

1 after August '90, but this appears to be writing it  
2 down in a formal agreement.

3 Q And approximately a year later?

4 A Yes.

5 Q Do you believe there was a prior  
6 agreement, one that preceded what has been marked  
7 as Jackson exhibit 10?

8 A I don't believe there is a written  
9 agreement.

10 Q I am interested in pursuing the  
11 question, Dr Chiswell, of agreements between CAT  
12 and MRC from the period of January 1 of 1990  
13 through August of 1990. For reference purposes,  
14 I'm using the documents that we looked at and not  
15 the final agreement.

16 A Okay.

17 Q We earlier established that John  
18 McCafferty was working in the MRC LMB lab beginning  
19 in January, is that right?

20 A Of 1990, yes.

21 Q 1990. And one of the documents  
22 I think took him through, was it May of 1990? Do  
23 you remember that document?

24 A Yes.

25 Q Let's use that as a time frame.

Page 86

Page 88

1 last dates with the first one.

2 Q Thank you. Now, turn back, if you,  
3 with me, to exhibit 13, because, frankly, this  
4 document confuses me in light of the sequence of  
5 documents we've just looked at.

6 If you look, first, going back to  
7 exhibit 10, under Title and Scope, the first page.

8 MR VEZEAU: Is this Jackson  
9 exhibit 10?

10 MR SKILTON: Yes.

11 MR VEZEAU: Thank you.

12 BY MR SKILTON:

13 Q Under Title and Scope. Do you have  
14 that in front of you?

15 A Yes.

16 Q "Title to the Invention shall be  
17 held jointly, one half by the Company and one half  
18 by MRC."

19 Was this the final resolution of  
20 this series of communications that we have just  
21 looked at?

22 A I'm not sure about final  
23 resolution. It takes a long time for the MRC to  
24 actually write agreements and agree agreements. We  
25 may well have agreed the 50 per cent quite soon

1 McCafferty during that time frame had signed  
2 a form Y?

3 A Yes.

4 Q Were there any other written  
5 documents that related to his work or the  
6 relationship between his work, CAT and MRC, that  
7 you're aware of, that related to this time frame?

8 A Other than the ones you have in  
9 front of me, no.

10 Q Were there any oral agreements  
11 during this time frame that you're aware of?

12 A The time frame quite severely?

13 Q Yes, I'm --

14 A I would go back earlier and say  
15 that Greg Winter and I had oral agreements and  
16 understandings that would have been entered into  
17 and understood before January 1990.

18 Q Let's go into those then. First of  
19 all, give me the time frame for these oral  
20 agreements, Dr Chiswell?

21 A Greg and I began discussing the  
22 foundation of Cambridge Antibody in the summer of  
23 1989, from there through to discussions that  
24 eventually led to the formal establishment of the  
25 company in December 1989, funded by Peptide

Page 89

1 Technology, PepTech. Those agreements would have  
2 grown over that period.

3 Q Were these agreements ever reduced  
4 to writing?

5 A Not explicitly, no. That's why I  
6 said they were oral agreements and understandings.

7 Q All right. And do your best here to  
8 list all such oral agreements and understandings  
9 that were reached between yourself and Dr Winter  
10 during this period of the summer of 1989 through  
11 December of 1989?

12 A The oral agreements we would have --  
13 would have built. I think, being oral agreements,  
14 there is no date that I could turn to and say,  
15 "This is when we had an oral agreement." It was  
16 always an understanding that we had found the  
17 company together.

18 As time developed, there was  
19 an understanding that any work that was  
20 collaboration between the company and the lab would  
21 be jointly owned.

22 There was also agreements, some of  
23 which may have been written down, in terms of --  
24 with PepTech, in terms of how much of the company  
25 each of the stake holders would own, including the

Page 90

1 MRC, including PepTech, including various  
2 consultants, including myself, and including  
3 Greg Winter.

4 Q All right. Any other oral  
5 understandings or agreements that you're aware of,  
6 as you sit here today?

7 A Those are the ones that come to mind  
8 at present.

9 MR SKILTON: All right. I'm told  
10 we're toward the end of a tape, so let's take  
11 a break.

12 MR VEZEAU: Shall we take a couple  
13 of minutes' break and, after that, go to about  
14 12.30 and then take a break?

15 MR SKILTON: Agreed.

16 THE WITNESS: Can I have a walk  
17 around in this break?

18 MR SKILTON: Absolutely.

19 MR VEZEAU: Sure.

20 VIDEOGRAPHER: This marks the end of  
21 tape number 1 in the deposition of Dr David  
22 Chiswell. We're going off the record. The time is  
23 11.25.

24 (A short recess at 11.25 am)

25 (Resumed at 11.41 am)

Page 91

1 (Exhibit 4 marked for identification)

2 VIDEOGRAPHER: This marks the  
3 beginning of videotape number 2 in the deposition  
4 of Dr David Chiswell. We're on the record. The  
5 time is 11.41.

6 BY MR SKILTON:

7 Q Dr Chiswell, I have placed in front  
8 of you a document which has now been marked as  
9 exhibit 4 in your deposition which bears the Bates  
10 stamp numbers of CM040129 through CM040131. It  
11 purports, on its face, to be a copy of a September  
12 18, 1990 letter to yourself from Martin Wood. Do  
13 you recognise this document?

14 A "Recognise" is probably too strong  
15 a word. It's not signed. It's gone to an odd  
16 address. But I assume it's --

17 Q Pardon?

18 A I'm happy to go ahead on the basis  
19 of what it purports to be; a letter to me from  
20 Martin Wood.

21 MR SKILTON: As a first matter, I'd  
22 say, counsel, that I do not have, unless I'm  
23 mistaken, a copy of his September 11 1990 letter to  
24 which this letter was responding, and I would ask  
25 that that letter be produced. And I'm referring

Page 92

1 here to the first sentence of the letter, and it  
2 says, "Thank you for your letter of 11  
3 September..." So that letter is not in our  
4 possession, to my understanding.

5 BY MR SKILTON:

6 Q If you look at this letter, it  
7 purports to be responding, does it not, to the  
8 points in the order of your September 11th letter?

9 A In response, yes.

10 Q And I'm referring here: "I would  
11 wish to make the following points on the Heads of  
12 Agreement proposed, using the numbering in your  
13 proposal."

14 A Yes.

15 Q Inventions. Do you see where that  
16 is on that first page?

17 A Yes.

18 Q I'll read it in: "Shall mean any  
19 invention or discovery made or originated during  
20 the course of and as a direct result of the  
21 Collaborative Research Programme."

22 It was your position, was it not,  
23 that the invention that you ascribe to yourself and  
24 Dr McCafferty in the earlier memorandum was not  
25 made as a direct result of a collaborative research

Page 93

Page 95

1 programme?  
 2 MR VEZEAU: Objection. Lack of  
 3 foundation.  
 4 BY MR SKILTON:  
 5 Q That was your position, wasn't it,  
 6 Dr Chiswell?  
 7 MR VEZEAU: Same objection.  
 8 BY MR SKILTON:  
 9 Q That was your position, wasn't it?  
 10 MR VEZEAU: Same objection; all  
 11 three questions.  
 12 THE WITNESS: Try again.  
 13 MR SKILTON: (To the court reporter)  
 14 Would you read it back, please?  
 15 COURT REPORTER: "Q. I'll read it  
 16 in: 'Shall mean any invention or discovery made or  
 17 originated during the course of and as a direct  
 18 result of the Collaborative Research Programme.'  
 19 "It was your position, was it not,  
 20 that the invention that you ascribe to yourself and  
 21 Dr McCafferty in the earlier memorandum was not  
 22 made as a direct result of a collaborative research  
 23 programme?"  
 24 THE WITNESS: You're mixing up  
 25 a document here that was an MRC provided definition

Page 94

1 of invention with something that was actually --  
 2 which is a legal definition to be incorporated in  
 3 an agreement, with a word I used in a document six  
 4 months' previously, which was me as a lay person  
 5 saying something.  
 6 And just to be absolutely explicit;  
 7 at no point have I taken the position that this was  
 8 anything other than a collaborative joint programme  
 9 with Greg Winter.  
 10 BY MR SKILTON:  
 11 Q Would you look back at the document  
 12 you just made reference to, exhibit 9 from the  
 13 Winter deposition?  
 14 A When I find it, yes.  
 15 Q If you can find it, yes.  
 16 A Yes, I have it.  
 17 Q Here look to the page we were  
 18 looking at in some detail before; CM040144?  
 19 A Yes.  
 20 Q And under 2.2, intellectual  
 21 property. I'll read the sentence we already read  
 22 once, but I want to read it again.  
 23 "Greg and I have discussed the  
 24 history with Sir Aaron and have agreed that the  
 25 invention was by John and myself."

1 What was the invention referred to  
 2 in this sentence?  
 3 A I think I said before, it's quite  
 4 clear to me. Well, first of all, it's not the  
 5 legal definition of "invention". I'm a lay  
 6 person.  
 7 Also, if you then, as I indicated  
 8 before, put it into the context of the second part  
 9 of the sentence, "...the MRC have a share of the  
 10 intellectual property..."  
 11 So what I'm doing here is saying,  
 12 "Well, actually, this is a piece of intellectual  
 13 property. Whatever the piece is, that it's jointly  
 14 shared."  
 15 Q Well, did Greg Winter agree that the  
 16 invention was by John and myself?  
 17 A I don't think it's explicit here  
 18 what the invention was.  
 19 Q Did he agree, as you state in this  
 20 memorandum, that he agreed that the invention was  
 21 by John and myself?  
 22 A I clearly state in the invention  
 23 that he agreed to something. I clearly state that  
 24 the invention was by. But I've no idea, in the  
 25 definition here, what the invention we're talking

Page 96

1 about is. We can go back to the history, if you  
 2 like.  
 3 Q Was this the document you were  
 4 referring to as being six months' prior?  
 5 A Yes.  
 6 Q In fact, it was roughly six weeks'  
 7 prior, isn't that so?  
 8 A 18th September to the 30th July.  
 9 Q Was there a difference between you  
 10 and Dr Winter about the definition of an invention,  
 11 of this invention?  
 12 A At what time? I don't think there'd  
 13 been -- if this question is in the July 1990  
 14 period, because, the documentation he's talking  
 15 about here, we had any legal concept of what the  
 16 invention was.  
 17 Q Well, at one time you certainly took  
 18 a position as a lay person that the invention was  
 19 the appropriate placement on gene III at the end  
 20 terminus?  
 21 A I don't think I've taken that  
 22 position.  
 23 Q You've never taken that position?  
 24 A When have I said that?  
 25 Q Well, I'm asking you. You didn't?

Page 97

Page 99

1 A No.  
 2 Q That was never your definition of  
 3 the invention?  
 4 A No.  
 5 MR SKILTON: Now, we have earlier  
 6 looked at -- strike that.  
 7 You alluded to documents that you  
 8 saw which related to the establishment of Cambridge  
 9 Antibody Technology, and I'm going to see whether  
 10 I can put my understanding of those documents in  
 11 front of you and ask you to identify them. If  
 12 I can find them in my package.  
 13 (Exhibit 5 marked for identification)  
 14 BY MR SKILTON:  
 15 Q Dr Chiswell, I have placed in front  
 16 of you a document that is marked as exhibit 5,  
 17 Bates stamped CM040466 and CM040467. Do you  
 18 recognise this document?  
 19 A Yes.  
 20 Q Was this one of the documents that  
 21 you reviewed in preparation for this deposition?  
 22 A Yes.  
 23 Q Is this the document that you were  
 24 referring to with reference to the 40 per cent  
 25 share, and so on and so forth?

Page 98

1 MR VEZEAU: Well, I don't know what  
 2 the -- I object to that question. It's indefinite  
 3 as to "so on and so forth".  
 4 MR SKILTON: Well, I'm not trying to  
 5 do much with the document, other than get an  
 6 identification.  
 7 BY MR SKILTON:  
 8 Q So look at paragraph 1. It says:  
 9 "PepTech and/or its nominees will hold 40 per cent  
 10 of the issued share capital."  
 11 Is this the document you were  
 12 referring to in reference to that fact?  
 13 A This is one of them. It's one of  
 14 the documents that summarises the agreements with  
 15 PepTech that led to the establishment of Cambridge  
 16 Antibody, which is called in this document  
 17 Cambridge Protein Design.  
 18 MR SKILTON: Mark this, please.  
 19 (Exhibit 6 marked for identification)  
 20 BY MR SKILTON:  
 21 Q I'm placing in front of you a  
 22 document that has been marked as Chiswell exhibit 6  
 23 and bears the Bates stamp number CM040468 through  
 24 469, which purports to be a copy of a letter on MRC  
 25 stationery bearing the date of 25 January 1990.

1 Is this one of the documents that  
 2 you reviewed in preparation for your deposition?  
 3 A Yes, it was.  
 4 Q What is this document, to your  
 5 understanding?  
 6 A This document is a response by  
 7 Martin Wood of the MRC -- sorry, Norma Morris of  
 8 the MRC. Actually, I think it's Norris. That  
 9 could be right. I couldn't remember whether her  
 10 name is Morris or Norris.  
 11 Q Do you know where this particular  
 12 document was discovered?  
 13 A No.  
 14 Q On the fax lines at the top there  
 15 are some identifications made and I'll ask you if  
 16 you understand any of them. Henry Davis York.  
 17 Does that name mean anything to you?  
 18 A Yes, that is a firm that did legal  
 19 work for PepTech, Peptide Technology.  
 20 Q Is it Eigil?  
 21 A Eigil.  
 22 Q Eigil Neilson?  
 23 A Yes.  
 24 Q Who is that person?  
 25 A He's the executive -- or was at the

Page 100

1 time, the executive chairman of PepTech, and was on  
 2 the board of Cambridge Antibody, the initial board.  
 3 Q What was Dr Winter's relationship,  
 4 if you understand it, to PepTech at this time?  
 5 A "This time" being the date of this  
 6 note, 25th January 1990?  
 7 Q Yes.  
 8 A We'd already agreed with PepTech to  
 9 establish Cambridge Antibody.  
 10 Q And Dr Winter's position with  
 11 reference to PepTech, to your understanding, at  
 12 that time was what?  
 13 A I'm trying to recall. At various  
 14 times he was a consultant for them, but I think at  
 15 this time he probably wasn't a consultant for  
 16 them. He was interacting with them as a consultant  
 17 for CAT, which had already been established.  
 18 Q I'm going to take you back to your  
 19 notebook, if I may; the first document we marked  
 20 today.  
 21 A When you say "back", that's in fact  
 22 forward two years.  
 23 Q Right. My copy has long legs.  
 24 Dr Chiswell, when was it in point of  
 25 time that you first met George Smith?

Page 101

Page 103

1 A I believe he was at this meeting  
2 that you're trying to get the papers for now; the  
3 April 1992 meeting at the Banbury conference  
4 centre.

5 Q Had you ever met him before that  
6 time?

7 A I don't believe I had.

8 Q Had you ever heard him speak?

9 A Not to my recollection.

10 Q Had you ever seen a presentation  
11 that he made, in the sense of written  
12 presentation, other than his published articles?

13 A No.

14 Q Let's take just the last pages first  
15 and let's look at CM039727.

16 A Okay, I have 727.

17 Q It would be better for you to read  
18 your notebook than for me. And so if you could  
19 read --

20 A Would you like me to read a page --

21 Q Could you read the top of that page,  
22 please, into the record?

23 A Okay. It says, "Call George (but  
24 about what?) Talk to Greg." There's an extra G in  
25 there. Then it's saying, "George in lab.

Page 102

1 Background on patents. Book with ideas."

2 Shall I continue?

3 Q Yes. Why don't we stop right  
4 there?

5 A Okay.

6 Q Who is George?

7 A Actually, not the George you're  
8 thinking about. My understanding, after review of  
9 the document, is this is not a related issue. It's  
10 George Piecznick.

11 Q I don't want to go into issues that  
12 are irrelevant, but what was the issue here that  
13 you were exploring?

14 A Well, what we have here is, if we go  
15 back to the previous page, where we refer to --  
16 George appears, followed by a US patent number and  
17 a telephone number.

18 If you remember the context of this  
19 meeting, I was running Cambridge Antibody, the  
20 company. We were in discussions with other  
21 people. One of the discussions I was having at the  
22 time was with a guy called George Piecznick, who  
23 had worked at some time, probably in the seventies,  
24 in the LMB, and had got some filed and granted  
25 patents covering arrays, to my memory.

1 Q Now, you were -- I'm sorry.

2 A And I believe that was this George.

3 Q All right. Good, thanks.

4 You indicated this was from a  
5 Banbury conference in April of '92?

6 A Yes.

7 Q Did I understand that correctly?

8 A Shall I -- just to be clear. I'm  
9 not sure about April '92, but certainly '92,  
10 whether it's April or May.

11 Q Was George Smith at this conference?

12 A Yes.

13 Q Did you hear him speak?

14 A Yes.

15 Q What portion of the notes relate to  
16 George Smith's comments, if any?

17 A I'll just go through them.

18 Q Yes, please.

19 A (Witness reviewed the document)  
20 There's a comment which is on page 74. My memory  
21 says there were a few other comments that were  
22 attributed to George Smith throughout. Should  
23 I just check for any others?

24 Q Yes, that would be helpful. Why  
25 don't you make a list and we'll take notes on the

Page 104

1 pages, and then we'll go through the pages?

2 A So that's 74. Helpfully, this is  
3 bound back-to-front as well, so... I can't read my  
4 writing the right way up, let alone upside down.

5 (Witness continued to review the  
6 document) Page 93. The word Smith appears on page  
7 700. Page 709. 716. I think I'm at the end of  
8 that whiz through.

9 Q Let's take you back, then, to the  
10 first page you identified, page 74. What was  
11 Dr Smith's role at this conference, if you recall?

12 A "Role" is probably quite a broad  
13 word. I recall him giving a talk and these are the  
14 notes of the talk.

15 Q What was the subject of the  
16 conference?

17 A The conference was on phage display.

18 Q Did the conference address phage  
19 display of antibodies?

20 A Yes.

21 Q Who at the conference spoke on that  
22 topic?

23 A I need to just check to be  
24 absolutely specific. I believe myself. I confirm  
25 myself. Barbas spoke, as did Dennis Burton, and

Page 105

Page 107

1 there's Melvyn Little.  
 2 Q Melvyn?  
 3 A Yes, Little.  
 4 Q All spoke on the subject of phage  
 5 display of antibodies. Was that the topic of the  
 6 conference?  
 7 A No, it was phage display.  
 8 Q There is an abstract or some kind of  
 9 written publication coming out of this?  
 10 A I don't believe there was.  
 11 Q Were any papers submitted, if you  
 12 know?  
 13 A No, it's not that sort of  
 14 conference.  
 15 Q What was the kind of conference that  
 16 this was? What's the format?  
 17 A The format is a select group of  
 18 invited people to discuss a topic of scientific  
 19 relevance, and which they should all be expert in.  
 20 Q Was there an invitation list to  
 21 this, if you know?  
 22 A I'm sure there was.  
 23 Q What other written documents, if  
 24 any, were there that relate to this conference?  
 25 A The conference, I think, is to allow

1 MR VEZEAU: That question is  
 2 ambiguous and I object to it.  
 3 BY MR SKILTON:  
 4 Q Did you know anything about his  
 5 work?  
 6 A Can you be explicit? That's a  
 7 different question.  
 8 George Smith has worked extensively  
 9 on phage display of peptides. I was aware of the  
 10 publications before. The peptide publications.  
 11 Q Were you aware of any work he had  
 12 done with respect to antibodies at this time?  
 13 A When I went to the conference, at  
 14 the start of the conference I wasn't aware of any  
 15 work he'd done on antibodies.  
 16 Q In the course of the conference did  
 17 you become aware?  
 18 A I became aware, yes, of some work he  
 19 said he had done.  
 20 Q What -- strike that.  
 21 When did he disclose this  
 22 information?  
 23 A In a conversation I had with him.  
 24 Q Was it part of his presentation?  
 25 A No.

Page 106

Page 108

1 people to talk relatively freely. It's not  
 2 intended for publication.  
 3 Q Let's go then to page 74. What,  
 4 first of all, does it say at the top?  
 5 A Smith.  
 6 Q And the word under that is?  
 7 A Classification.  
 8 Q What are you drawing here?  
 9 A What I believe I'm drawing is that  
 10 George Smith proposed that we classified phage  
 11 along certain lines, and I'm drawing here  
 12 a representation of something he drew up.  
 13 I'd need to refer to other notes  
 14 because, frankly, I don't think this proposed  
 15 classification caught on in any way, so I'm not  
 16 aware of it being used at any time since 1992.  
 17 Q Did you know anything about George  
 18 Smith's personal work with respect to phage display  
 19 of antibodies as of this conference?  
 20 MR VEZEAU: Excuse me? May I hear  
 21 that question again?  
 22 COURT REPORTER: "Q. Did you know  
 23 anything about George Smith's personal work with  
 24 respect to phage display of antibodies as of this  
 25 conference?"

1 Q When was this conversation?  
 2 A It was some time during the course  
 3 of what was probably a 3-day meeting.  
 4 Q Was anyone else present during this  
 5 conversation?  
 6 A I was talking to George individually  
 7 so, unless someone was nearby. I don't recall. It  
 8 wasn't part of the group.  
 9 Q How long did this conversation last?  
 10 A Brief.  
 11 Q What did he say that you recall  
 12 during this conversation?  
 13 A I recall him, sort of, saying to me  
 14 -- congratulating me on the work we'd done, and  
 15 saying that he'd also tried to display, I believe  
 16 he said, a single chain antibody fragment on phage  
 17 and hadn't been successful.  
 18 Q Do you recall anything else he said  
 19 to you?  
 20 A I believe he referred to working  
 21 with the people who designed single chain  
 22 antibodies.  
 23 Q Did he mention them by name?  
 24 A He either mentioned the company,  
 25 Genex, or an individual, which would have been



Page 109

Page 111

1 Ladner. I can't recall that. But --  
2 Q Was this -- strike that. I'm sorry.  
3 A But that was written down on a piece  
4 of paper as well. There was a report I wrote after  
5 the meeting and I've referred to that.  
6 Q Was there a report of this  
7 conversation written?  
8 A There was, yes.  
9 Q Is that in this exhibit?  
10 A No, because it wasn't in this  
11 notepaper.  
12 Q Have you seen that report in  
13 preparing for your deposition?  
14 A I've seen the report. Yes, I've  
15 referred to bits of that. You're going to get it,  
16 are you?  
17 Q We're trying to get it. Why did you  
18 write a report of this conversation?  
19 MR VEZEAU: The question lacks  
20 a proper foundation in characterising the report.  
21 MR SKILTON: Maybe it does.  
22 BY MR SKILTON:  
23 Q What was the report of, Dr Chiswell?  
24 A I wrote two separate reports, if you  
25 want to call them reports. One was, like, a

1 Q Well, where were you in terms of the  
2 work on the McCafferty patent? Had it been  
3 completed?  
4 A Someone will need to tell me that in  
5 terms of what was filed in the patent; the date of  
6 that.  
7 Q We'll work on that. Let me see if  
8 we can find the report since we're on that topic.  
9 (Document found) Yes, the PCT was filed in July of  
10 1991.  
11 Let's then stay with this note. Is  
12 there anything else about this note that you can  
13 recall as being significant or refreshes your  
14 recollection about what he said at that time?  
15 A His note? No.  
16 Q Yes, I'm referring now to the 674  
17 page.  
18 A No.  
19 Q Let's go to your next reference then  
20 if I may.  
21 MR VEZEAU: Ninety-three?  
22 MR SKILTON: Ninety-three, I guess  
23 that's right; 693.  
24 THE WITNESS: Would you like me to  
25 read it out?

Page 110

Page 112

1 scientific report of the conference, which reflects  
2 the notes you have in front of you of the people  
3 who gave presentations and discussions there.  
4 A separate short description of the  
5 conversation I've described to you with George  
6 Smith was also recorded.  
7 Q All right, let's talk about the  
8 separate conversation. Why did you write a report  
9 on that?  
10 A That's the conversation with George  
11 Smith?  
12 Q Yes.  
13 A Because I found it interesting that  
14 he said that he had worked on phage and that it  
15 hadn't worked, and I thought that was an important  
16 observation from someone with so much prior art in  
17 the field.  
18 Q What was the status of your  
19 inventive activities as of April of 1992?  
20 A I'm not sure --  
21 MR VEZEAU: I'm sorry, Thelma.  
22 THE WITNESS: -- what "inventive  
23 activities" means.  
24 MR VEZEAU: Yes.  
25 BY MR SKILTON:

1 BY MR SKILTON:  
2 Q We're looking at 693 or CMO30693?  
3 A Yes.  
4 Q Would you read that note, please, on  
5 that page?  
6 A It says, "Smith rapid sequence PEG  
7 pellet phage", then there's an arrow, one says "add  
8 32p", I assume that means primer, "alkali,  
9 neutralise, sequence. They work without PEG on  
10 a good growing phage."  
11 It's a technical trick. "Trick" is  
12 probably the wrong word. A technical tip.  
13 Q Given by George Smith, to your  
14 recollection?  
15 A Yes, I would say that's what that  
16 note refers to, yes.  
17 Q Let me show you a document that's  
18 been earlier entered in these proceedings as  
19 CAT 30(b)(6) exhibit 22.  
20 A Yes. (Same handed)  
21 Q This purports to be notes of  
22 a Banbury meeting?  
23 A Yes.  
24 Q To your belief and knowledge, do  
25 these notes relate to the same meeting that is



Page 113

Page 115

1 described in or is reflected in your notes on  
 2 exhibit -- what's the number of that document?  
 3 MR VEZEAU: Chiswell exhibit 1?  
 4 MR SKILTON: Yes.  
 5 THE WITNESS: Yes, they are relating  
 6 to the same meeting.  
 7 BY MR SKILTON:  
 8 Q And are these the notes you were  
 9 making reference to in your testimony --  
 10 A Yes.  
 11 Q -- a few minutes' ago?  
 12 Now, to be sure, am I correct that  
 13 there is no note in your notebook that relates to  
 14 this conversation that you had?  
 15 A That's correct.  
 16 Q And you reviewed your notebook on  
 17 that?  
 18 A This notebook, yes, yes.  
 19 Q When in point of time were the  
 20 notes, exhibit 22, prepared?  
 21 A I have no date on them as far as  
 22 I can tell. Presumably when I came back from the  
 23 meeting.  
 24 Q Who were these notes sent to?  
 25 A They would have been distributed to

1 that he had tried and failed to put an ScFv from  
 2 Genex into gIII in 1988/89. Genex were clearly not  
 3 over helpful. Might prove useful to show that  
 4 early publications were not enabling for  
 5 antibodies."  
 6 That's the note you were referring  
 7 to?  
 8 A That's correct.  
 9 Q What did he say about Genex, if you  
 10 recall?  
 11 A I can't recall precisely what he  
 12 said, other than what I've written down in the  
 13 notes.  
 14 Q Why did you comment as follows,  
 15 "might prove useful to show that early  
 16 publications were not enabling for antibodies"?  
 17 Why did you make that comment?  
 18 A That's why it stuck in my mind. At  
 19 this time we were already -- we'd written the  
 20 patents -- defined the inventions, if you want --  
 21 and discussed the prior art with our patent  
 22 attorneys, and we were clear of the view that  
 23 George Smith's early work was not enabling for  
 24 antibodies -- in fact, rather the opposite;  
 25 pointed away -- and a comment from George seemed to

Page 114

Page 116

1 the employees of CAT that were relevant. I can't  
 2 be explicit since I don't have a distribution list  
 3 on them.  
 4 Q Now the --  
 5 A It may or may not -- just to be  
 6 explicit, it may or may not have gone to  
 7 Greg Winter. I can't recall.  
 8 Q Now, the note that I'm looking at,  
 9 tell me whether this is the one that you were  
 10 alluding to, appears at the top of the page  
 11 CO17780.  
 12 A Yes.  
 13 Q Is this the notes you were referring  
 14 to?  
 15 A Yes, it is.  
 16 MR VEZEAU: John, I think, so the  
 17 record is clear, would you either have the witness  
 18 read it in or read it --  
 19 MR SKILTON: Yes, I'll read it in.  
 20 MR VEZEAU: -- because there's a lot  
 21 of stuff at the top of the page.  
 22 BY MR SKILTON:  
 23 Q The note that I'm alluding and  
 24 pointing your attention to is one that reads:  
 25 "George Smith privately is candid

1 be like a useful confirmation of that.  
 2 Q Were you looking for that  
 3 confirmation in this conversation with George  
 4 Smith, Dr Chiswell?  
 5 A I don't believe I was. Since I had  
 6 no idea that he'd worked on antibodies at all until  
 7 this conversation, I wouldn't be looking for it.  
 8 Q Was it a concern of yours at that  
 9 time that the Smith early publications were, in  
 10 fact, enabling for antibodies?  
 11 A Not a concern at all, no.  
 12 Q It wasn't a concern at all?  
 13 A No.  
 14 Q Was this subject of the early  
 15 publications as being enabling a subject that you  
 16 had talked about with your patent lawyer?  
 17 MR VEZEAU: Objection. May I hear  
 18 this question, Thelma?  
 19 COURT REPORTER: "Q. Was this  
 20 subject of the early publications as being enabling  
 21 a subject that you had talked about with your  
 22 patent lawyer?"  
 23 MR VEZEAU: No, I can't let you  
 24 answer that question. In my mind that's certainly  
 25 diving right into privileged communications.

Page 117

1 MR SKILTON: You're darn right I am.  
 2 That's the waiver you made in this case --  
 3 MR VEZEAU: No way.  
 4 MR SKILTON: -- on this subject.  
 5 MR VEZEAU: No way. That's  
 6 absolutely untrue, John.  
 7 MR SKILTON: There is no way you can  
 8 hide anything that relates to Smith and the issue  
 9 of the priority of Smith or any conversation. You  
 10 can't do it.  
 11 MR VEZEAU: Well, I'm telling you  
 12 I'm doing it because I disagree with your  
 13 construction of the waiver absolutely.  
 14 MR SKILTON: I want to hear your  
 15 basis for disagreement. You state why that's an  
 16 improper question on this record.  
 17 MR VEZEAU: (To the witness) I'm  
 18 advising you that to the extent answering this  
 19 question would entail revealing discussions you had  
 20 with your counsel, you should not do so.  
 21 There is no way in the world that,  
 22 with respect to Smith's early publications and any  
 23 issue of enablement, that there was any waiver with  
 24 respect to that, and you know that, John.  
 25 MR SKILTON: No, I don't. Actually

Page 118

1 I know you know that you are abusing what you have  
 2 done in this case. You are using a defence here,  
 3 Mr Vezeau, that you will not permit me to  
 4 cross-examine, and that is absolutely improper --  
 5 i-m-p-r-o-p-e-r -- conduct in a federal court.  
 6 MR VEZEAU: You're absolutely  
 7 incorrect.  
 8 MR SKILTON: Let's take our lunch  
 9 break.  
 10 MR VEZEAU: Fine.  
 11 VIDEOGRAPHER: We're going off the  
 12 record. The time is 12.23.  
 13 (A short recess at 12.23 pm)  
 14 (Resumed at 1.38 pm)  
 15 VIDEOGRAPHER: We're back on the  
 16 record. The time is 13.38.  
 17 BY MR SKILTON:  
 18 Q Dr Chiswell, returning, if you will,  
 19 to exhibit 22 from the 30(b)(6) deposition. Is  
 20 this --  
 21 A That's 30(b)(b)(sic)22?  
 22 Q Yes, it's 22 from a 30(b)(6)  
 23 deposition. The one document you were looking at  
 24 before the break, and I'm referring you to the page  
 25 C017780.

Page 119

1 A Okay.  
 2 Q And, again, to that top paragraph  
 3 which I read into the record.  
 4 Did you send this document to your  
 5 counsel?  
 6 A I can't recall that I did. I think  
 7 it's unlikely.  
 8 Q Was this the first time that you  
 9 knew that George Smith had, in the words of your  
 10 memo, tried -- I don't want to -- I was going to  
 11 say "tried by failed" but -- yes, tried but failed  
 12 to put single chain antibodies on phage?  
 13 A Yes.  
 14 Q Now, he was essentially disclosing  
 15 this to you directly in a private conversation?  
 16 A Yes.  
 17 Q Did he volunteer it to you?  
 18 A My recollection would be a bit hazy  
 19 given the fact that it's ten years' ago, but my  
 20 recollection is that it was, yes, a statement that  
 21 he made without me, say, I didn't go looking for  
 22 it.  
 23 Q Did he also tell you that he had  
 24 obtained an NIH grant to do the work?  
 25 A To do what work?

Page 120

1 Q To do the work with respect to  
 2 single change antibodies?  
 3 A No.  
 4 Q When was the first time that you  
 5 became aware, if you became aware at all, of  
 6 Dr Smith obtaining a grant with respect to  
 7 attempting to display antibodies on phage?  
 8 A I can't say that I'm aware that he's  
 9 actually obtained a grant. I'm aware that he had  
 10 a grant application.  
 11 Q When did you first obtain knowledge  
 12 of that fact?  
 13 A Some time during the prosecution of  
 14 this patent. I can't be explicit. So it was  
 15 whenever it would have come up in the European  
 16 opposition.  
 17 Q How did you become aware of it?  
 18 A I wouldn't be sure. I've never seen  
 19 it, so someone must have told me.  
 20 Q You've never seen the grant itself?  
 21 A Not to my knowledge. I don't recall  
 22 seeing the grant application.  
 23 Q I will show you the document so that  
 24 we can confirm your recollection in that regard, or  
 25 refresh it if that's the case.

Page 121

Page 123

1 I'm going to put in front of you a  
2 document which has been marked previously as Winter  
3 exhibit 10. That contains, in part, the grant  
4 application of Smith, I will represent to you.  
5 And, further, I will represent that the copy that  
6 you're looking at is a copy that was contained in  
7 the files of Sean Walton.

8 Have you ever seen this document or  
9 a copy of it prior to this moment?

10 A Not to my knowledge. Obviously  
11 I haven't been through all the things to refresh me  
12 on every page, but I don't believe I have.

13 Q What were you shown, if anything,  
14 concerning the Smith grant in the European  
15 opposition proceedings?

16 MR VEZEAU: Objection. Lack of  
17 foundation.

18 BY MR SKILTON:

19 Q Were you shown anything?

20 A I said I've never seen this, that  
21 I recall, so...

22 Q Were you shown any arguments that  
23 were made in reference to the grant?

24 A No. My involvement in that -- I was  
25 not deeply involved in prosecuting the papers at

1 concerning the Smith grant in reference to the  
2 European patent office arguments?

3 A That's correct.

4 Q And you have no recall of editing  
5 any piece of paper containing any such argument,  
6 I take it, is that correct?

7 A That's probably a fair assumption,  
8 yes.

9 Q And you don't remember ever making  
10 a substantive comment on any argument that was made  
11 in the European patent office concerning the Smith  
12 grant, is that correct?

13 A That's correct.

14 Q Were you ever asked a question by  
15 counsel to the effect of whether you knew that  
16 Smith, in fact, had conducted work with respect to  
17 antibodies on phage during the European patent  
18 office prosecution proceedings?

19 A I don't specifically recall a  
20 question from counsel. I don't specifically recall  
21 a question from anyone, to be honest, but it would  
22 not be surprising if Ron Jackson or someone had  
23 said, "Were you aware of this or that?" I just  
24 have no recollection.

25 Q You have no recollection?

Page 122

Page 124

1 that time, so it was only by hearsay that I would  
2 have picked up.

3 Q What do you mean by "only by  
4 hearsay"?

5 A Well, I wasn't directly involved in  
6 conducting the opposition in the European patent,  
7 although I was at times present. The arguments  
8 would have been formulated by Mewburn Ellis and by  
9 the CAT people. They actually were involved more  
10 directly in the patent prosecution than I was at  
11 that time.

12 Q Did you read the arguments that were  
13 made on behalf of CAT in the European patent office  
14 proceeding?

15 A I can't be clear what I read and  
16 what I didn't.

17 Q Were you ever asked to comment on  
18 the arguments that were made concerning the Smith  
19 grant in the European patent opposition proceeding,  
20 Dr Chiswell, if you recall?

21 A I may have been but I wouldn't have  
22 thought I would have been brought into many  
23 substantive discussions on them.

24 Q So you have no recall of having been  
25 brought into any substantive conversations

1 A No.

2 Q To your understanding, who at CAT  
3 was the person who was most responsible for  
4 preparing the documents that were submitted to the  
5 European patent office during the opposition to the  
6 European patent, McCafferty?

7 A Primarily that would have been Ron  
8 Jackson. Later arguments would have been Diane  
9 Wilcock. It would be much later.

10 Q During the period -- and we'll say,  
11 roughly, of '97 to date, to this date, you were at  
12 that time the president and CEO of CAT?

13 A The CEO.

14 Q CEO. Was there a president?

15 A No, not with that title.

16 Q In British law, is it the chairman,  
17 executive officer? What is the precise title that  
18 you had?

19 A Chief executive officer.

20 Q Chief executive officer. And  
21 there's a chairman of the board?

22 A Yes, there is.

23 Q And there was during this period?

24 A There was, yes.

25 Q Who was that by name, please?

1 A That was Peter Garland.  
 2 Q Throughout this entire time?  
 3 A Which entire time? '97 onwards.  
 4 Q '67 through April 1st?  
 5 A '97. Shall we try '97? He's trying  
 6 to get back to his youth.  
 7 Q There must be a word for someone who  
 8 has trouble with numbers, because that's me --  
 9 other than dumb, so you don't have to use that.  
 10 A So '97 onwards, yes, Peter Garland.  
 11 Q Is he still chairman of the board?  
 12 A Yes, he is.  
 13 Q Who is the new CEO?  
 14 A He's Peter Chambré.  
 15 Q Would you spell his name, please?  
 16 A C-h-a-m-b-r-e.  
 17 Q And he took his responsibility as of  
 18 April 1st?  
 19 A I think strictly April 8th but...  
 20 Q I think I've asked you the question  
 21 but I want to ask it in an over-arching sense just  
 22 in case I may not have put it broadly enough.  
 23 But is it correct to say that, to  
 24 your recollection, you had no direct involvement  
 25 with respect to any arguments made on behalf of CAT

1 in the European patent office proceedings?  
 2 A That's much broader than the  
 3 questions you asked me on.  
 4 Q It is broader. That why I asked the  
 5 questions. So the answer to that question is  
 6 what?  
 7 MR VEZEAU: Let's hear the question,  
 8 please.  
 9 MR SKILTON: Yes, please.  
 10 MR VEZEAU: Thelma?  
 11 COURT REPORTER: "Q. I think I've  
 12 asked you the question but I want to ask it in  
 13 an over-arching sense just in case I may not have  
 14 put it broadly enough.  
 15 "But is it correct to say that, to  
 16 your recollection, you had no direct involvement  
 17 with respect to any arguments made on behalf of CAT  
 18 in the European patent office proceedings?"  
 19 THE WITNESS: I'm not sure I got the  
 20 complete flow, but I did have some involvement in  
 21 determining some arguments.  
 22 BY MR SKILTON:  
 23 Q Can you specify those arguments that  
 24 you were involved in?  
 25 A Well, I believe I appeared at the

1 opposition hearing itself.  
 2 Q And that's the oral proceedings?  
 3 A The oral proceedings.  
 4 Q They, I believe, were in July of  
 5 2001, roughly. Is that correct, to your  
 6 recollection?  
 7 A I thought it was earlier than that,  
 8 but I would bow to my counsel when we were there.  
 9 Q I think I'm right on that. Let's  
 10 assume that I'm right and, if I'm wrong, the record  
 11 will be corrected. In any event...  
 12 Oh, is it 2000? I'm sorry. Again,  
 13 my numbers are being corrected. So it's 2000?  
 14 A Yes.  
 15 Q With that as a correction in the  
 16 question, what participation did you have with  
 17 respect to that proceeding?  
 18 A That particular proceeding, I think  
 19 I just sat there.  
 20 Q Did you fashion any arguments?  
 21 A Not in the proceedings.  
 22 Q Did you participate in any respect  
 23 in those proceedings as a matter of preparation for  
 24 them?  
 25 A I would have sat in on some of the

1 meetings for the preparation.  
 2 Q Who else was in those meetings?  
 3 A Ron Jackson would have been there.  
 4 Probably Diane Wilcock.  
 5 Q Do you recall the subject of the  
 6 Smith grant coming up during this meeting?  
 7 A I was aware of the Smith grant.  
 8 Q Did you offer any -- sorry.  
 9 A I don't think so. I was aware of  
 10 comments that -- you know, the arguments that were  
 11 being applied to the Smith grant, but I don't  
 12 believe I was making any specific contribution.  
 13 Just to be correct, I should say I was aware of the  
 14 existence of the grant, not the document I have.  
 15 Q Let's clear the record up. When you  
 16 made that comment, it was in reference to knowledge  
 17 that you obtained of the fact that a grant  
 18 application had been made?  
 19 A I think, strictly, a grant  
 20 application had been cited within the documents  
 21 within the European opposition.  
 22 Q But you didn't get any of the  
 23 documents that were, in fact, submitted with  
 24 respect to that contention by the opponents in the  
 25 European patent office, is that correct?

Page 129

Page 131

1 A I'm not aware of that although, to  
2 be fair, my memory is that the patent office  
3 opposition required a whole pile of documents, and  
4 if the grant application was in the middle of  
5 those, that doesn't necessarily mean I wouldn't  
6 read it.

7 Q I'm trying to focus you, if I can,  
8 on your entire knowledge and involvement as it  
9 respects the arguments made on the Smith grant  
10 application in the European patent office.

11 Have you through this testimony, to  
12 the best of your knowledge, recounted your full  
13 involvement?

14 A I believe so.

15 Q During the European patent  
16 prosecution proceedings, is it correct to say that  
17 you were not called by Sean Walton and asked about  
18 the Smith grant?

19 A That's a comment about leading up to  
20 it? Or called in the sense of at the hearing?

21 Q No, called in the sense of on the  
22 telephone.

23 A Okay. Not that I'm aware, no.

24 Q Or consulted person-to-person?

25 A Not that I'm aware.

1 have read and signed it.

2 Q So it is your practice to have read  
3 a document before you signed it, correct?

4 A Yes.

5 Q And in this case it is your belief  
6 that, in fact, you did read the document before you  
7 signed it?

8 A Yes.

9 Q And you believed it to be true?

10 A Yes.

11 Q Let's go back, if I may, to your  
12 notebook and continue where we were in reference to  
13 your entries relating to George Smith. Do you have  
14 that in front of you?

15 A Yes.

16 Q The last one I believe we were  
17 talking about was on page 39693?

18 A Yes.

19 Q Would you, again, please read the  
20 reference as it relates to Smith into the record?

21 A This one again?

22 Q Please. On the top, and then I'm  
23 going to ask you a question of whether the bottom  
24 one at all relates to --

25 A I've already read the Smith one into

Page 130

Page 132

1 MR SKILTON: Next exhibit.  
2 (Exhibit 7 marked for identification)

3 BY MR SKILTON:

4 Q Dr Chiswell, I can place in front of  
5 you a document that bears the exhibit number in  
6 your deposition of 7 and the Bates stamp numbers of  
7 CM014134 through 158 inclusive.

8 A Okay.

9 Q Do you have any understanding of  
10 what this document is?

11 A Not immediately but, if you give me  
12 time, I'll go through it or you can tell me.

13 Q Let me help you by pointing to  
14 a page that I believe has your signature on it, and  
15 then we'll work only with that document, and that  
16 is on CM014154.

17 A Okay.

18 Q You'll see that's the second page of  
19 a 2-page document entitled Assignment and bearing  
20 the date of January 8th of 1993.

21 Do you have any recollection of  
22 having signed this document?

23 A Well, I've obviously signed it.

24 Q Do you remember doing so?

25 A Frankly, no, but I'm sure I would

1 the record.

2 Q All right.

3 A I can do it again.

4 Q I don't think that's necessary, but  
5 let me just point you to the bottom of that page.  
6 Is the April 27th date at all helpful in terms of  
7 establishing anything relating to date on this  
8 document?

9 A Well, I mean, what I believe it  
10 refers to is a meeting I would have arranged with  
11 Walt, who is not related to this. He was a contact  
12 in Boehringer, Boehringer Ingelheim.

13 Q Remember I told you --

14 A Boehringer Mannheim.

15 Q -- I was going to try to point you  
16 to whatever dates I could find?

17 A Yes, and that's the date that I  
18 believe -- that would probably be Monday April  
19 27th, assuming it's 1992. I was arranging either a  
20 meeting or arranged to call in at that time.

21 Q Let's go to 700 now, if we may.  
22 That's my next note.

23 You indicated this page had some  
24 information relating to Smith?

25 A Yes.

Page 133

Page 135

1 Q Would you read such portion of this  
2 page that relates to George Smith?

3 A Well, first of all, it starts at the  
4 top of the page with Mark Zoller. It's probably,  
5 sort of, a brief note on what he said at the  
6 conference. It says, "mouse CH1 different."  
7 That's all it says. There's a reference then to  
8 what I take to be Matty. It says, "D1.3 degrades  
9 in bacteria." And then it says -- and this,  
10 I think, is probably the most related bit, "Issue  
11 of gene devoted to phage display." It then says,  
12 "manuscript before August 1st publication 2 months  
13 (submit to Smith)."

14 What I believe this was is -- and  
15 this is drawing my memories out now. I believe  
16 there was a plan to have a whole issue of the  
17 journal Gene devoted to phage display; that anyone  
18 who wanted to publish in that journal or that issue  
19 should submit their manuscript before August 1st,  
20 that it would be published within two months of  
21 that, and you should submit it to George Smith.

22 Q Did you ever submit an article in  
23 that context?

24 A I can't remember.

25 Q Was there any such publication, if

1 in fact, most of the talks in that particular  
2 conference were on that sort of topic. So George  
3 Smith, you know, in effect, largely established the  
4 field of phage display of peptides, and that's how  
5 I understood his role.

6 BY MR SKILTON:

7 Q Tell us, with respect to the work of  
8 George Smith, how you utilised that work in your  
9 own efforts to display antibody on phage?

10 A The work of Smith didn't directly  
11 talk to the display of any protein which, of  
12 itself, needed a biological function. But what it  
13 did do, it sort of took the field to a point where  
14 you could display arguments as a, sort of, passive  
15 bit of information, the peptide on a phage, and  
16 make use of that.

17 Q And did it give a method by which  
18 one could display that passive peptide on phage?

19 A Generally, yes.

20 Q Did it make recommendations with  
21 reference, for example, to the vector?

22 MR VEZEAU: I'll object to that too  
23 because you reference "to the vector".

24 MR SKILTON: Well, any vector.

25 MR VEZEAU: It's indefinite.

Page 134

Page 136

1 you recall?

2 A I actually can't remember that. It  
3 would be a matter of record, so that could be  
4 found.

5 Q Do you recall why it was that the  
6 articles were to be submitted to George Smith?

7 A He would presumably be arranging, in  
8 effect -- "edit" would probably be the wrong way to  
9 talk about it. He would compile the issue.

10 Q Would you describe your  
11 understanding of George Smith's role with respect  
12 to phage display generally, as of the time of this  
13 conference? And I mean by that what you understood  
14 at the time of the conference.

15 MR VEZEAU: So you're clear what's  
16 being asked. You're being asked now: Do you  
17 remember now what your feelings were at the time of  
18 this conference concerning the role of George Smith  
19 with respect to phage display?

20 THE WITNESS: Well, I was aware of  
21 George Smith's role in effect establishing the  
22 field of display in peptides on phage, getting a  
23 lot of scientists excited by the possibility of  
24 displaying peptides on phage, and beginning to  
25 explore what you could do with that system. And,

1 THE WITNESS: George, I believe most  
2 of the time in his publications, was using the  
3 phage fd. I believe he made a number of comments  
4 of why he was using that. He also made a number of  
5 comments as to what he believed were restrictions  
6 in the system.

7 BY MR SKILTON:

8 Q What about the use of gene III? Did  
9 Smith, to your understanding at that time,  
10 contribute knowledge as to whether, for example, to  
11 use gene III or gene VIII with respect to  
12 insertion?

13 A I'm not sure I'm aware of what work  
14 Smith had done to identify which was best. Most of  
15 the work that I understand him to have done was  
16 gene III insertions.

17 Q Did he offer you information as  
18 relating to whether or not that insertion point,  
19 at least as one alternative, might be at the end  
20 terminus?

21 A For peptides?

22 Q Yes.

23 A That was one of the places, or  
24 approximately the end terminus was one of the  
25 places, where he had published that he'd

Page 137

Page 139

1 successfully displayed peptides.

2 Q Was this work work that you used,  
3 at least in part, in the pursuit of your efforts  
4 to display antibody on phage?

5 MR VEZEAU: I'm going to object to  
6 that question as indefinite and vague.

7 MR SKILTON: He can object. You can  
8 answer.

9 THE WITNESS: If you can repeat it?

10 COURT REPORTER: "Q. Was this work  
11 work that you used, at least in part, in the  
12 pursuit of your efforts to display antibody on  
13 phage?"

14 THE WITNESS: I'm not sure  
15 I understand what you mean by "used". I mean, the  
16 situation was that that information was there in  
17 the public domain. George Smith had published the  
18 works and we were aware of it.

19 BY MR SKILTON:

20 Q You had read it?

21 A Yes.

22 Q Had you read that work at the time  
23 you were at Amersham?

24 A That was published at the time I was  
25 at Amersham, yes.

Page 138

1 Q Had you, in fact, read both the  
2 Smith ninety -- excuse me, the Smith '85 article  
3 and the Parmley and Smith '88 article while you  
4 were still employed at Amersham?

5 A Yes.

6 Q Was this work part of your  
7 discussions with Dr McCafferty while you were still  
8 at Amersham?

9 A It would have been the background,  
10 sort of the background, to those discussions, yes.

11 Q Now, prior to the lunch break we  
12 were talking about what, in fact, McCafferty  
13 actually did at Amersham with reference to -- and  
14 I'll be very specific here -- the oligonucleotides.

15 Can you state, for the record, your  
16 best recollection of what it is that Dr McCafferty  
17 did with reference to oligonucleotides and the  
18 ultimate use of oligonucleotides in the phage  
19 display of antibody while he was still at Amersham?

20 MR VEZEAU: Objection. Lack of  
21 foundation.

22 THE WITNESS: What we would have  
23 discussed would have been, if we were to embark on  
24 a project which would allow us to -- or which would  
25 have enabled us to display an antibody fragment on

1 a phage, what steps would we take to go about  
2 designing the experiments to do that.

3 In general, I would have thought at  
4 that time, we might have looked at what needed to  
5 be done to modify generally available vectors to do  
6 that, choose potential sites where we might want to  
7 try inserting an antibody fragment, and perhaps  
8 even with oligonucleotides try and identify what  
9 changes we need to make to the available vectors to  
10 get us to the point where we wanted to get to to  
11 start the programme.

12 BY MR SKILTON:

13 Q What had been conceived by you  
14 and/or Dr McCafferty while you were still at  
15 Amersham with respect to the display of antibodies  
16 on phage?

17 MR VEZEAU: I object to that  
18 question and the use of the term "conceive" which,  
19 in this context, is a legal term and I don't  
20 believe this witness is qualified to speak to  
21 that.

22 THE WITNESS: Can you rephrase it  
23 without "conceived"?

24 MR SKILTON: Well, first I'll put  
25 the question he has instructed you not to answer.

Page 140

1 (To Mr Vezeau) Are you instructing  
2 him not to answer?

3 MR VEZEAU: I objected, John. You  
4 heard my objection.

5 MR SKILTON: So, subject to the  
6 objection, you may answer.

7 THE WITNESS: Okay. Will you repeat  
8 it, please?

9 COURT REPORTER: "Q. What had been  
10 conceived by you and/or Dr McCafferty while you  
11 were still at Amersham with respect to the display  
12 of antibodies on phage?"

13 THE WITNESS: I believe that we had  
14 identified that it was an approach we wanted to  
15 take to solve the problems that we felt CAT would  
16 need to solve.

17 BY MR SKILTON:

18 Q All right. Now, what was in that  
19 approach? What were the specifics of the approach,  
20 as you then had formulated it? "Then" being prior  
21 to the time that you arrived, prior to January 1st  
22 of 1990.

23 MR VEZEAU: Objection. Lack of  
24 foundation.

25 THE WITNESS: I think we need to go



Page 141

1 back to the early discussions of what the company  
2 that became Cambridge Antibody was going to be all  
3 about.

4 From the very first moment it was  
5 going to be an antibody engineering company. If we  
6 look back to that time, there were a number of  
7 things where people were already making, sort of,  
8 commercial companies out of antibodies alone, which  
9 we thought were part of the plan for CAT at that  
10 time.

11 One of the bigger problems we wanted  
12 to do was to make antibodies that were human from  
13 the beginning. The state of the art was that  
14 libraries of antibody genes could be made;  
15 basically, one of Greg Winter's early work. But,  
16 in practical terms, no-one could really isolate the  
17 antibody they wanted.

18 So one of the earlier questions we  
19 posed; that it would be nice, as a general good,  
20 if the company could solve it, to give itself a  
21 technology platform would be the ability to isolate  
22 the antibody that we wanted out of these sort of  
23 libraries.

24 That would have been a discussion  
25 that Greg and I and John would have had throughout

Page 142

1 the course of the second half of '89. And then  
2 issues as to what ways we could think of solving  
3 it, and also what amount of resource would be  
4 sensible to put into what would be quite a  
5 speculative venture.

6 BY MR SKILTON:

7 Q Had you decided on the vectors that  
8 you would use at this time? The vector or vectors?

9 A I think we'd identified that fd was  
10 a vector that had been used for the display of  
11 peptides, so we would clearly want to use that.

12 Q Is that the same as fdTet?

13 A It's probably more a generic term;  
14 fdTet is a specific vector.

15 I think at that stage, before we'd  
16 done any practical work, it's very theoretical to  
17 say, "Well, this is an approach", and I think we  
18 would have identified "This is one of the  
19 approaches to start." I would have expected it to  
20 have involved the use of fdTet. There were  
21 probably other possible ways we would consider to  
22 go forward. But, once you get into the practical  
23 work, you find problems arise and you, sort of,  
24 identify ways of solving those, and that could take  
25 you to a completely different direction. So at the

Page 143

1 moment this is, essentially, a theoretical  
2 discussion of what we might want to start work on.

3 Q And one of the things that you  
4 mentioned in an earlier answer is that you had  
5 considered during this period potential sites. How  
6 far had you progressed on your thinking there while  
7 you were still employed by Amersham?

8 A And I think I said we'd also  
9 considered different organisms in which to do any  
10 display.

11 Q You did indeed. Let's first talk  
12 about sites.

13 A I have to be careful because I think  
14 I'm, sort of, thinking back to what we might have  
15 done at the time rather than being explicit  
16 memories of what we actually did.

17 I don't doubt that we would have  
18 focused a lot on sites in gene III. That's already  
19 like a protein which people had shown display of  
20 peptides in there. We would have asked questions,  
21 "Would this be suitable for what we want to do?"

22 Q How about the end terminus site?

23 A That was a site that Smith had used  
24 for peptides. We would undoubtedly have considered  
25 that.

Page 144

1 Q You? I'm sorry?

2 A Would undoubtedly have considered  
3 that as a potential site.

4 Q And another thing you identified was  
5 the issues of consideration of oligonucleotides.  
6 How far had you progressed there while you were  
7 still at Amersham?

8 A I can't recall precisely how far  
9 we'd progressed. I think I've said in an earlier  
10 example answer, we may have designed what we  
11 thought they should be.

12 Q And is it correct here that you  
13 don't have any recollection, as you sit here today,  
14 as to whether or not there was actually a physical  
15 oligonucleotide that was made by John McCafferty  
16 prior to his arrival in the MRC laboratory? Is  
17 that correct?

18 A That's correct. You use the word  
19 "made"; implies physically made himself.

20 Q To the best of your recollection,  
21 however, had he determined the sequences that he  
22 felt would be appropriate prior to coming to the  
23 MRC lab? --

24 A We would have looked at the  
25 sequences, and this would probably have been



Page 145

Page 147

1 something we did together. We may have ideas as to  
2 which ones we would try first and what order we  
3 would try them in. I can't specifically recall.

4 Q Is it correct to say that there is  
5 no document that you are aware of that recounts how  
6 far along you were in the process before John  
7 McCafferty started his work in the MRC laboratory?

8 A That's correct.

9 Q So it's a matter really of  
10 attempting to reconstruct, based on your  
11 recollection and Dr McCafferty's?

12 A Yes.

13 Q As refreshed by any documents that  
14 we can show you that might have that capacity?

15 A Feel free to try and refresh.

16 Q Let's continue with our little trip  
17 through your notebook relating to Dr Smith. I  
18 think we're now to 709, if my notes are correct,  
19 a page that is headed with a name I think I can  
20 read, Jill Winter?

21 A Yes.

22 Q What portions of this page relate to  
23 Dr Smith?

24 A Probably I can work you through  
25 this.

1 A No, I'm not. I'm way off, to be  
2 honest. I've got a pile of papers. 716?

3 Q 716, yes. (Witness reviewed the  
4 document) It seems your document has been  
5 separated.

6 A If someone could give me a copy it  
7 might be easier?

8 Q Let's see if we can put it back  
9 together while we're looking for it. (Documents  
10 sorted) You're on 716?

11 A I am now on 716.

12 Q Thanks. What are we looking at  
13 here?

14 A We're looking at here, again, a talk  
15 by Petresko, which I believe is P-e-t-r-e-s-k-o.  
16 It says, "Used peptide on phage to mouse specific  
17 anti-serum" -- which would have been directed to --  
18 "(rabbits)".

19 My mistake. Sorry; my writing.

20 "Use peptide on phage to raise  
21 specific anti-serum (rabbits) to HIV." P17 is  
22 a protein of HIV.

23 Then there's a comment from George  
24 Smith, I assume, which says, "When did you start?  
25 Answer, when he saw Smith 85", which is the

Page 146

Page 148

1 This was, I believe, a presentation  
2 given by Jill Winter. It says transgenic plants  
3 and Biotin - anti-biotin used as a model. So,  
4 again, this is display of peptides, I assume, in  
5 the system. And that she'd developed a consensus  
6 sequence, which is part of the technique for using  
7 peptides. The goal is to get a consensus sequence  
8 and draw conclusions from that at the time. And,  
9 apparently, when she got this consensus sequence --  
10 I will extrapolate a little bit now. I believe  
11 that what she did then; she made a consensus  
12 sequence of a peptide and found that it didn't  
13 bind. That is my interpretation of the note.

14 I then have the word George there.  
15 I'll read the words out. "Don't be misled by  
16 strong consensus. Put efforts into looking for  
17 possible motifs. Not all mabs pull out peptide  
18 from his library."

19 I believe what he was doing then was  
20 making a comment on the work of Jill Winter saying,  
21 "Don't get focused on one particular consensus  
22 sequence out of this sort of thing. Look around."

23 Q And, finally, I've got page 716 on  
24 my notes as a page you identified. Are you with me  
25 now on page 39716?

1 publication.

2 Q Why did you take a note of that  
3 interchange?

4 A No idea.

5 Q Do you have a recollection of that  
6 interchange, as you sit here today?

7 A No.

8 Q Was George Smith in the audience or  
9 in the front? I mean, why is he being quoted in  
10 the context of other persons?

11 A He would have asked the question.  
12 I don't know, for some reason I would have wrote it  
13 down.

14 Q And today you don't have a specific  
15 recollection of why you made that particular entry,  
16 is that correct?

17 A No, I don't.

18 Q Staying with the notebook, would you  
19 look at page CM039711?

20 A Yes.

21 Q That's your writing, I take it?

22 A You mean the page that says Jamie  
23 Scott?

24 Q Yes.

25 A Yes.

Page 149

Page 151

1 Q Did you have an understanding of who  
2 Jamie Scott was, in reference to what lab she was  
3 working in or what projects she was working with?

4 A I believe I understood she was  
5 either a PhD student or a post-doc in George  
6 Smith's laboratory. Several of the talks, I think,  
7 were given by George Smith's students or post-docs.

8 Q Do you recall what Jamie Scott said?

9 A Only on these notes there. I can  
10 read them out for you.

11 Q All right, why don't you read them?  
12 Let's start that way.

13 A It says, "NIH" -- which is a  
14 reference to the National Institute of Health --  
15 "library repository." And there's a comment; it  
16 says, "No enthusiasm. Some support for a  
17 bulletin."

18 Q Do you have any understanding of  
19 what these notes mean?

20 A I could suppose. I don't, frankly,  
21 have any recollection of them, but I could make a  
22 stab at what I believe they were.

23 Q What do you believe they were?

24 A What I believe they were is that  
25 either Jamie or -- in this talk Jamie Scott would

1 of the Smith lab in conducting his experiments  
2 which led to the 108 patent?

3 A One of the starting points we had  
4 was the vector fdTet, which I believe we obtained  
5 from the American type, Tissue Culture Selection.  
6 Who deposited in that -- who deposited that in the  
7 Tissue Culture Collection I don't have specific  
8 knowledge of, but it could well have been George  
9 Smith.

10 Q That confirms, does it -- maybe I'll  
11 restate the question.

12 Does that confirm to you that, in  
13 fact, you used the vector fdTet in the experiments  
14 that John McCafferty did?

15 A At some point the fdTet was used.

16 Q Is it correct to say that you kept  
17 no lab notebook concerning the experiments of  
18 Dr McCafferty in the laboratory, the MRC lab?

19 A John McCafferty would have kept lab  
20 notebooks.

21 Q And you kept no independent lab  
22 notebook?

23 A No, John's work was...

24 Q Is there any document that you  
25 yourself kept, whether it be a memorandum or notes

Page 150

Page 152

1 have proposed that a repository for libraries would  
2 have been created -- this is peptide libraries  
3 would have been created -- at the NIH; that the  
4 audience, the meeting I suppose, had showed no  
5 enthusiasm for that, but there was some support for  
6 a regular bulletin, you know, Phage News Today sort  
7 of thing.

8 Q Sounds exciting.

9 A Yes, I'm not sure it ever happened.

10 Q Did Dr McCafferty, in the course of  
11 his work, to your knowledge, ever obtain any  
12 materials from George Smith or from the work of  
13 George Smith in conducting his experiments with  
14 reference to what ultimately became the McCafferty  
15 patent?

16 A It's quite a broad question "from  
17 the work of George Smith". We were obviously aware  
18 of the work of George Smith. It was part of the  
19 intellectual background.

20 Q No, this is more specific, and so  
21 I'll try to state it more clearly. I'm asking for  
22 physical materials.

23 Do you know whether or not John  
24 McCafferty obtained physical materials that were  
25 either from the Smith lab or the result of the work

1 to file or anything, to mark the progress of the  
2 work that John McCafferty did while he was in the  
3 MRC lab?

4 A Not that I'm aware of.

5 Q Would he report to you concerning  
6 his work?

7 A Yes.

8 Q In that laboratory?

9 A Yes.

10 Q Was he, technically speaking, your  
11 employee? And now I mean CAT's employee?

12 A Yes.

13 Q During that period?

14 A This is the period January 1990  
15 onwards? The answer would be "yes" to that period.

16 Q What was the arrangement, if any,  
17 between the MRC and CAT during this period that  
18 Dr McCafferty was working in the MRC lab concerning  
19 his report of the work he was doing in that lab to  
20 the MRC?

21 A It was a joint -- as we saw it, it  
22 was a joint programme, effectively, between CAT in  
23 the guise of John McCafferty and myself, since we  
24 were CAT at the time, and Greg Winter. It was  
25 a joint project in that sense.

Page 153

Page 155

1 Q Taking to your knowledge of John  
2 McCafferty's work prior to the filing of the first  
3 priority prior to July 10 of 1990, can you tell me  
4 who else worked with John McCafferty in making the  
5 experiments that led up to the filing of that first  
6 priority document on July 10, 1990?

7 A Given that John was actually  
8 operating remotely from me, I can't be absolutely  
9 explicit.

10 My understanding is that the  
11 discussions were mainly with John, myself  
12 and Greg. John would obviously have discussed  
13 various aspects of his work with other people  
14 within the lab, and at some point in probably  
15 around April, maybe March, he would have obtained  
16 some key tools, some key reagents from Andrew  
17 Griffiths.

18 Q What did he obtain, to your  
19 knowledge, from Andrew Griffiths?

20 A The actual single chain antibody  
21 gene construct that was first displayed in phage.  
22 He would also have obtained other materials prior  
23 to that from other people in Greg Winter's  
24 laboratory.

25 Q In terms of the actual experimental

Page 154

1 work that was being done by Dr McCafferty, do you  
2 know whether or not any other persons were working  
3 with him on that work?

4 A Apart from supplying him tools and  
5 reagents, I can't be explicit because I wasn't  
6 there. I wasn't expecting anyone else to actually  
7 do the practical work with John.

8 Q Was this work highly confidential  
9 work?

10 A Yes.

11 Q How did you protect its confidential  
12 nature? You being Dr Chiswell and Cambridge, CAT?

13 A We protected it by being careful  
14 about who we discussed what we were doing with  
15 within Greg's lab, and not discussing it outside of  
16 an environment that was confidential, as it was  
17 between Greg and myself and John.

18 Q Did you similarly regard documents  
19 that reported his work to be confidential?

20 A I would have done, yes.

21 Q For example, the priority document  
22 itself --

23 A Absolutely.

24 Q -- was a confidential document?

25 A Yes.

1 Q And treated that way by both  
2 Dr McCafferty and by you, correct?

3 A And by Greg Winter.

4 Q And Greg Winter?

5 A Yes.

6 Q I've asked you this before, but we  
7 had a series of questions this morning that  
8 followed the review of documents and I'm going to  
9 ask you now again.

10 Do you have recall that Dr Winter  
11 reviewed the first priority document, the one that  
12 was filed on July 10, 1990, prior to its filing?

13 MR VEZEAU: Objection. Asked and  
14 answered.

15 MR SKILTON: It was asked, and I'm  
16 asking whether his answer has been refreshed.

17 THE WITNESS: My understanding is  
18 that Greg would have seen drafts that led up to  
19 that document.

20 BY MR SKILTON:

21 Q And you're not certain as to whether  
22 he saw that particular document itself?

23 A Well, you're talking about the  
24 particular priority document?

25 Q Yes, sir.

Page 156

1 A The route of that from it's been  
2 filed to here is what we actually filed and who saw  
3 what. You'd need a paper trail to say exactly  
4 that. Because more in general you would have seen  
5 versions of it that led up to it.

6 Q Did Dr Winter ever tell you that he  
7 did not agree with the statement that you and John  
8 McCafferty weren't inventors?

9 A I don't recall him telling me  
10 personally.

11 Q Well, did you become aware that he  
12 had that position?

13 A I've become aware recently, yes.

14 Q When did you first become aware of  
15 that?

16 A I understand it came up yesterday.  
17 I'm not sure when I actually first became aware of  
18 that. It may have come before in the preparation.

19 Q You have no recall that he expressed  
20 disagreement with you at the time? And by that  
21 I mean the time prior to July 10 of 1990.

22 MR VEZEAU: Disagreement with what?

23 MR SKILTON: With the statement that  
24 John McCafferty and David Chiswell were the  
25 inventors.

Page 157

Page 159

1 MR VEZEAU: That assumes that  
2 particular statement was made to him. It lacks  
3 a foundation.

4 BY MR SKILTON:

5 Q What were you told in terms of  
6 Dr Winter's disagreement, Dr Chiswell?

7 A Well, the only disagreement that  
8 I can recall is documented in these papers here,  
9 which is what percentage -- you know, was it 50/50?  
10 Was it 25/75? One way or the other? -- part of the  
11 discussions that would have been going on at the  
12 time.

13 Q Why don't you read the sentence into  
14 the record that you're referring to in your last  
15 answer?

16 A Well, this document, which  
17 was Winter 9. So my position, writing this  
18 document, it says: "If we were to take an unduly  
19 legalistic view I believe MRC could validly claim  
20 between 25-50 per cent..."

21 There is another statement, I think  
22 in one of the MRC replies, that say they probably  
23 saw it, from their point of view, was 50 to 75 per  
24 cent in their favour. You probably know where that  
25 is in the documents, if you wish to read the

1 you had been advised that Dr Winter had testified  
2 that he disagreed with a certain statement that had  
3 been made in a document. Do I understand you  
4 correctly?

5 A You asked me a question about  
6 a specific statement, yes.

7 Q I'll point your attention and I'll  
8 rephrase the question.

9 You were told that, during his  
10 deposition, Dr Winter disagreed with a position  
11 concerning inventorship. Is that correct?

12 MR VEZEAU: At this time you're now  
13 being asked what you were told in connection with a  
14 deposition. If, indeed, in responding to this  
15 question, you need to reveal discussions you've had  
16 with counsel, those are privileged and you should  
17 not do so. Do you understand that?

18 THE WITNESS: Yes.

19 MR SKILTON: I understand the  
20 instruction, but I believe the record reflects that  
21 he has given an answer which I view to be  
22 tantamount to reviewing a document, and that is to  
23 say he was told what a witness testified to in a  
24 deposition that I took yesterday. And so I have  
25 a right to pursue that as a matter of proper

Page 158

Page 160

1 particular one.

2 Q Yes, I probably left it in the other  
3 room. May I see the document that you're looking  
4 at and then maybe we can expedite it?

5 A Just give me a second.

6 Q Sure.

7 A (Witness reviewed the documents) It  
8 would be Winter 13.

9 Q Winter 13? Let me see if we can get  
10 a copy and I'll --

11 A It's estimated that the LMB  
12 contribution is between 50 and 75 per cent rather  
13 than 25 and 50 per cent.

14 This document, which is Winter 13,  
15 suggests that the MRC view was that the LMB  
16 contribution was between 50 and 75 per cent rather  
17 than 25 to 50 per cent.

18 Q Let's look at exhibit 9.

19 A Winter 9?

20 MR VEZEAU: Winter 9?

21 BY MR SKILTON:

22 Q Yes, you're right. That's true.  
23 Winter 9, right. Do you have that in front of  
24 you?

25 You indicated in a prior answer that

1 examination here.

2 MR VEZEAU: I disagree, and I've  
3 given my instruction.

4 BY MR SKILTON:

5 Q Were you at any time told that Dr --

6 A Before you do that. (To Mr Vezeau)  
7 Did you instruct me not to answer, Tim? Or just to  
8 be --

9 MR VEZEAU: Yes, I did.

10 THE WITNESS: Okay, right.

11 BY MR SKILTON:

12 Q Were you aware -- were you made  
13 aware that Dr Winter testified that he disagreed  
14 with the following statement, "Greg and I have  
15 discussed the history with Sir Aaron and have  
16 agreed that the invention was by John and myself"?  
17 Are you aware that he disagreed with that  
18 statement?

19 A I take my attorney's instruction not  
20 to answer the question.

21 Q Is it your testimony that,  
22 contemporaneous with this document, he never  
23 expressed any such disagreement?

24 A I think my testimony is that  
25 I wasn't aware of any disagreement, otherwise

Page 161

1 I wouldn't have written it down.

2 Q That is to say, you wouldn't be  
3 putting in a document a statement of an agreement  
4 which wasn't accurate, is that correct?

5 A I wouldn't be writing down in  
6 a document that I have agreed with Greg and  
7 Sir Aaron, in a document that I expected them to  
8 see, for example, unless I believed it to be the  
9 case, but people have different recollections.

10 MR SKILTON: Let's take a break.

11 VIDEOGRAPHER: We're going off the  
12 record. The time is 1437.

13 (A short recess at 2.37 pm)

14 (Resumed at 3.03 pm)

15 (Exhibit 8 marked for identification)

16 VIDEOGRAPHER: This marks the  
17 beginning of the third tape in the deposition of  
18 Dr David Chiswell. We're on the record. The time  
19 is 15.03.

20 MR SKILTON: Dr Chiswell, I'm  
21 placing in front of you a document, which we will  
22 mark as exhibit 8 in these proceedings. And while  
23 you're looking at it I'll identify it as bearing  
24 the Bates stamp numbers of CM040465 and separately  
25 CM040463. Those are the two pages.

Page 162

1 MR VEZEAU: What do you mean  
2 "separately"?

3 MR SKILTON: Well, they're not in  
4 sequential order.

5 MR VEZEAU: Oh, I see what you're  
6 saying. Okay.

7 MR SKILTON: And when you've had  
8 a chance to review it, let me know, please.

9 THE WITNESS: Okay, yes. (Witness  
10 reviewed the document) Whenever you're ready, I'm  
11 ready.

12 BY MR SKILTON:

13 Q Do you have any recall of this  
14 facsimile to George Smith dated July 21st, 1995?

15 A Yes.

16 Q You sent it?

17 A Yes.

18 Q Did you talk to George Smith prior  
19 to sending it?

20 A No.

21 Q Did you talk to George Smith after  
22 sending it?

23 A No.

24 Q Why did you send it to George Smith?

25 A It's self-explanatory. I would like

Page 163

1 him, in context with a European patent application  
2 of someone else, to give an expert opinion of the  
3 state of the science of phage display in 1987.

4 Q Do you recall who the other entity  
5 was?

6 A No, I don't recall, sorry.

7 Q Let me ask, is it the Dyax?

8 A It could be, but I actually don't  
9 recall. That's one surmise but, logically, I don't  
10 recall.

11 Q Is it correct to say you received no  
12 response at all from --

13 A That's correct.

14 Q -- Dr Smith?

15 A That's correct.

16 Q And the matter ended with the  
17 communication, so far as you were concerned?

18 A Yes, yes.

19 Q On the second page, is that  
20 "patents"? Is that the word "patents" in your  
21 writing up in the upper right-hand --

22 A It is likely. That's a good  
23 interpretation, yes.

24 Q It is your writing? -

25 A Yes.

Page 164

1 Q And the period of time, as  
2 indicated, was the state of play of phage display  
3 in 1987?

4 A That's correct.

5 Q Earlier I placed in front of you, as  
6 exhibit 1, an abstract. Excuse me, exhibit 2,  
7 I believe, unless --

8 A I'm not sure.

9 Q Maybe I haven't. Maybe my notes are  
10 incorrect. Winter exhibit 1.

11 MR VEZEAU: That was the priority  
12 document. No, no, it wasn't, I'm sorry.

13 MR SKILTON: I may not have put it  
14 in.

15 MR VEZEAU: I don't know what you're  
16 talking about now, John.

17 MR SKILTON: I'll get another  
18 document. It's what I believed we marked as --

19 MS UMBERGER: It's Winter exhibit 1.

20 MR SKILTON: Winter exhibit 1, which  
21 has not been placed in front of the witness  
22 before. My notes were incorrect. (Same handed)

23 BY MR SKILTON:

24 Q The document is entitled Abstract,  
25 and it goes on for pages CM040353 through 358. Do

Page 165

Page 167

1 you recognise this document?

2 A To be able to answer that explicitly  
3 I would need to read it. I've never seen it before  
4 so I have no idea what it is at the moment, so  
5 I could do with a few minutes to read it.

6 Q Please take the time to read it.

7 (Witness reviewed the document)

8 MR VEZEAU: Do you want to --

9 MR SKILTON: Why don't we take five  
10 minutes? I don't normally ask a witness to take  
11 his time in deposition to read, but I do have some  
12 substantive questions in this document. It isn't  
13 all that long, so we'll go off the record, if we  
14 may.

15 VIDEOGRAPHER: We're going off the  
16 record. The time is 1508.

17 (A short recess at 3.08 pm)

18 (Resumed at 3.20 pm)

19 VIDEOGRAPHER: We're back on the  
20 record. The time is 1520.

21 BY MR SKILTON:

22 Q Dr Chiswell, did you have an  
23 opportunity to review the document entitled  
24 Abstract, which has been marked in your -- has it  
25 been marked or is this Winter --

1 but I don't know.

2 Q Do you know who drafted this  
3 document?

4 A Again, "no" is too strong a word  
5 because I don't really know the status of it, but  
6 it was probably drafted, at least in part, by me.  
7 It may have been drafted, in part, by Greg and  
8 John.

9 Q Are there parts of this  
10 document, Winter exhibit 1, that you recognise as  
11 being a part that you drafted?

12 A Not explicitly, no.

13 Q Are there parts that you recognise  
14 as having been drafted by John McCafferty?

15 A No, not specifically. I would  
16 assume he would have had more to say on the  
17 protocols and methods, but I don't know because  
18 I have no recollection of how we got to writing the  
19 paper.

20 Q You did have chance to review this  
21 document?

22 A Yes.

23 Q And it is divided, as you suggest,  
24 into sections. One is Abstract. And, staying on  
25 that section, I'm going to point you to the

Page 166

Page 168

1 A Winter 1.

2 Q Winter 1, thank you.

3 MR VEZEAU: John, to be a little  
4 petty, I don't believe the document is entitled  
5 Abstract, so I object to your question for improper  
6 foundation.

7 MR SKILTON: Well, I think you are  
8 being a little bit petty, but I will say that the  
9 first word on the document is Abstract.

10 MR VEZEAU: I agree with that.

11 MR SKILTON: Thank you.

12 THE WITNESS: I agree with  
13 everything that Tim said.

14 The reason it isn't a title; it's  
15 actually a document that's got different sections,  
16 and Abstract is the first section, that's all.

17 BY MR SKILTON:

18 Q What is it?

19 A It has no title. It has no date.  
20 So anything I say about it really is surmise on the  
21 basis of what I think it probably is.

22 Q What do you believe it to be?

23 A It looks like a draft of an article...  
24 that was published in Nature at the end of 1990.  
25 December 6th 1990? It's probably an early draft,

1 paragraphs --

2 A You've turned the paragraph, so  
3 you're outside the section.

4 Q Yes, right. Well, am I still in the  
5 section?

6 A No, because it's Introduction.

7 Q I'm sorry, right. I'm in the  
8 Introduction?

9 A Mmmm.

10 Q I'm on page 354, and I'm beginning  
11 with the paragraph, "Although these phages do not  
12 kill..."

13 A Yes.

14 Q And all the way through "...of their  
15 own" on the next paragraph down. In other words,  
16 those two full paragraphs. You had a chance to  
17 read those, and if you want to read them again,  
18 please do.

19 A No, I'd rather read them after  
20 you've asked your question and then I can read more  
21 explicit.

22 Q Did you draft these paragraphs?

23 A Again, I can't be explicit as to  
24 what was drafted by who.

25 Q All right. Well, I'm very specific

Page 169

1 now on these two paragraphs, and your answer is the  
2 same?

3 A Absolutely, yes.

4 Q Do these paragraphs accurately state  
5 the status of the prior art, as you understood it  
6 at the time that you undertook the laboratory work  
7 -- "you" being CAT -- to obtain the phage display  
8 of antibodies?

9 MR VEZEAU: I object to that  
10 question for improper foundation.

11 THE WITNESS: I think you're talking  
12 of two different things. This is, I believe, an  
13 early draft of an article intended for a scientific  
14 publication. So we don't use terms like "prior  
15 art" in that. It's really a question of what was  
16 the view of -- this is a general scientific  
17 environment in which you made the experimental work  
18 that you're about to report to the scientific  
19 community.

20 BY MR SKILTON:

21 Q And, in that context, is it such  
22 a review?

23 A Well, if this is an early draft, so  
24 I think this would have gone through several other  
25 iterations before we got to what we were

Page 170

1 comfortable with as being the right one to publish.

2 Q I will state, to my knowledge, these  
3 two paragraphs that I'm referring to did not appear  
4 in subsequent drafts.

5 So let's stay with these two and ask  
6 you whether, as you have read them today, they  
7 accurately reflect materials that were read by you  
8 and Dr McCafferty prior to commencing your work  
9 with reference to the phage display of antibodies?

10 A It refers to papers by Smith,  
11 Parmley and Smith, Smith's group, which I believe  
12 was de la Cruz et al. I'm hazy about whether that  
13 was a Smith paper or someone else. So I believe  
14 it's accurate in terms of referring to the papers.

15 Q These paragraphs speak for  
16 themselves, so I don't wish to characterise them,  
17 but, for example, they do refer to various  
18 positions within gene III and insertion sites at  
19 the end terminus; these two paragraphs I'm  
20 referring to.

21 MR VEZEAU: So what's your point?

22 MR SKILTON: I haven't asked the  
23 question.

24 MR VEZEAU: Okay, thank you.

25 THE WITNESS: Yes, they do refer to

Page 171

1 insertion sites which I...

2 BY MR SKILTON:

3 Q Is it correct that, on the issue of  
4 the insertion site, this is an accurate description  
5 of how it was you and McCafferty decided to use the  
6 insertion site at the end terminus?

7 A I don't think it's meant to be an  
8 accurate description of what we went through to get  
9 to that point. This is after the fact of having  
10 success; making sure that we write a paper which  
11 is accurately intended for a scientific audience.

12 Q And to accurately describe the  
13 process of your thought?

14 A No, not necessarily.

15 Q Does it accurately describe the  
16 process of your thought?

17 A Let me read these two.

18 Q Please do.

19 A (Witness reviewed the document)  
20 I don't think it accurately reflects thought of any  
21 sort. It's a description of what those papers  
22 actually say.

23 Q Now that you've had a chance to  
24 specifically review these two paragraphs, do you  
25 know who wrote that description?

Page 172

1 A Again, no. I'm not saying it wasn't  
2 written by anyone at CAT. I have no recollection  
3 of who drafted what or, frankly, what the status of  
4 this draft is in terms of the build-up to writing a  
5 paper.

6 Q On Methods, that section, and I'll  
7 read the first introductory phrase: "Protocols  
8 used in the following procedures were as described  
9 in Sambrook et al 1989."

10 A Yes.

11 Q Do you believe this to be a sentence  
12 that was written by John McCafferty?

13 A I've no idea.

14 Q Do you know whether this is, in  
15 fact, a description that follows in Methods of the  
16 protocols that were, in fact, used in the  
17 experiments that resulted in the display of what is  
18 styled in the article as a phage antibody?

19 A Within the context of this early  
20 draft of the paper, often Sambrook et al is used as  
21 shorthand because it was, essentially, a textbook  
22 or a laboratory recipe book. It was standard to  
23 molecular biology laboratories. And often the  
24 standard techniques that were used in there, in any  
25 lab, would have been described in there. And to



Page 173

1 offer in writing the first part of the method you'd  
2 say, "Okay, everything is by Sambrook" and then  
3 you'd work out which one is what.

4 Q My question specifically is: Does  
5 this accurately describe, this section on Methods,  
6 what it was that was done to obtain the phage  
7 antibody as reported in this document?

8 A It's not as detailed a description  
9 as you would find, for example, in the patent  
10 application.

11 Q In the what?

12 A In the patent applications.

13 Q Does it accurately describe what was  
14 done?

15 A I actually don't know.

16 Q This is --

17 A Unless you want me to read Sambrook,  
18 which I suggest would take some time.

19 Q Do you understand this to be  
20 describing what's in the Sambrook book? Or what,  
21 in fact, was done following the Sambrook book?

22 A I believe it's a general statement  
23 saying protocols, and probably in the next draft it  
24 would have said, "Unless otherwise defined,  
25 protocols would perform as in Sambrook", which you

Page 174

1 can take to be usual materials and methods for a  
2 molecular biology lab.

3 Q Under this section, the methods that  
4 are recited and discussed, are these methods that  
5 are the usual methods that you would find in the  
6 Sambrook publication, to your understanding,  
7 Dr Winter?

8 A Many of them, yes.

9 Q Any that are not?

10 A Give me a second. (Witness reviewed  
11 the documents) As we go through them, the  
12 paragraph on the top of what is page 3 or 355.

13 Q Let's be specific. The paragraph  
14 that begins with, "Viral particles"?

15 A There's more detail there on growing  
16 viral particles, and it's referred to at the end,  
17 a particular part of that was, according to  
18 Sambrook et al, rather than the rest of the  
19 paragraph.

20 Q What is it that was not, according  
21 to Sambrook et al, according your recollection?

22 A I have no recollection. I'm reading  
23 out what it actually says. It specifies how viral  
24 particles would grow, by growing TG1 cells in the  
25 volume of 2xTY medium, it states.

Page 175

1 That's probably quite specific  
2 methods which may or may not have been in the  
3 Sambrook book, whereas the general method of  
4 producing single stranded DNA for mutagenesis from  
5 the concentrated phage was a standard issue that  
6 was produced in Sambrook et al.

7 Q The next paragraph appears to have  
8 been based, at least in part, on the Sambrook  
9 textbook, correct?

10 A Yes.

11 Q Would you agree, generally, that the  
12 procedures here, that are listed under the methods,  
13 were common and generally known procedures?

14 MR VEZEAU: Objection. Lack of  
15 foundation.

16 THE WITNESS: These are general  
17 methods available in molecular biology labs at the  
18 time.

19 BY MR SKILTON:

20 Q Let's go to Results and Discussion.  
21 There are, under this topic, on page 40356, we have  
22 three topics brought in here. The first one is  
23 design of insertion point. Do you know who  
24 authored this section?

25 A Again, I can't be explicit.

Page 176

1 Q Does this design reflect your  
2 thought and work with Dr McCafferty prior to  
3 January 1st of 1990?

4 A This document, I assume, was written  
5 somewhere at the end of 1990, not prior to January  
6 1990. So I don't think it's designed to reflect  
7 necessarily all we were considering, but it was an  
8 element of the things that we were considering at  
9 the time. That would have been, let's say, early  
10 January.

11 Q And --

12 A And possibly before. I'm not saying  
13 it wasn't before.

14 Q All right. And we're talking now  
15 about the section of design. Is there any part of  
16 this section that you can point to as being work  
17 that was the result of McCafferty in the lab after  
18 he joined CAT?

19 A All the work referred to here,  
20 I assume, would have been done after he joined CAT.

21 Q What concepts were available to him  
22 with reference to the design of the insertion point  
23 prior to his commencing that work in the lab?

24 MR VEZEAU: I'll object to that  
25 question, to the use of the term "concepts", which



Page 177

Page 179

1 is a legal term.

2 MR SKILTON: It's also a word that  
3 has ordinary meaning.

4 THE WITNESS: So you're using it in  
5 the sense of an ordinary meaning?

6 BY MR SKILTON:

7 Q I am.

8 MR VEZEAU: Do you understand this  
9 question?

10 THE WITNESS: Not completely,  
11 because I need to have it re-read again.

12 MR VEZEAU: Thelma, could you read  
13 it back, please?

14 COURT REPORTER: "Q. What concepts  
15 were available to him with reference to the design  
16 of the insertion point prior to his commencing that  
17 work in the lab?"

18 THE WITNESS: I'm not sure that's  
19 a question that really points to this document, to  
20 be honest, because you're asking a question that  
21 goes back to the July 1990. This is actually  
22 a commentary that was probably written in  
23 November/December 1990, so...

24 BY MR SKILTON:

25 Q Where do you draw the inference that

Page 178

1 it was drafted so late in that year from?

2 A Because we published a paper --  
3 actually, we published a paper in Nature in July --  
4 sorry, in December 1990. Now, that was submitted  
5 to Nature some time before that, so probably at an  
6 earlier date, and this would have been prior to the  
7 submission date.

8 Q Let's first have you link the draft  
9 that you've been referring to with your testimony.  
10 And I'll place in front of you a document that's  
11 been earlier entered in these proceedings as  
12 McCafferty 11. (Same handed) Is this the document  
13 that you made reference to in your last answer?

14 A Yes.

15 Q And it's your belief that this  
16 document, Winter 1, that begins with the word  
17 Abstract, was a draft of what became McCafferty 11?

18 A Yes, I believe that's the case.

19 Q Just a quick review, I hope, will  
20 confirm to you that the paragraphs that I pointed  
21 out earlier, relating to the Smith work, do not  
22 appear as such in the final article. Do you see  
23 that?

24 A Well, I believe you on that, but  
25 I mean I think that -- I haven't gone through this

1 article for some time. The way this is written,  
2 the whole structure of the document, it completely  
3 changed from what actually went into the paper, so  
4 that's why I believe it's an early draft.

5 Q I want to refer you back to  
6 a document you looked at earlier. It's exhibit 3,  
7 and I believe that Thelma has put it in front of  
8 you for easy reference.

9 MR VEZEAU: What exhibit 3?

10 MR SKILTON: From this deposition.

11 MR VEZEAU: Chiswell?

12 MR SKILTON: Chiswell. (Document  
13 found)

14 BY MR SKILTON:

15 Q I want to point you to the second  
16 document; the minutes. Remember we looked at them  
17 earlier?

18 A Okay.

19 Q And the second paragraph, which we  
20 talked about earlier, the sentence I'll read into  
21 the record: "DJC agreed to provide a summary of  
22 the patent that had been filed."

23 Could this document, Winter 1, be  
24 the summary that's referred to in this document?

25 MR VEZEAU: Objection. Lack of

Page 180

1 foundation.

2 BY MR SKILTON:

3 Q Is it the summary?

4 A I wouldn't have thought so. You may  
5 know better than me, but it doesn't feel like  
6 a summary of the paper to me. It feels like an  
7 early draft of the paper.

8 Q Since it's in front of you, although  
9 I believe I asked you the question before; does  
10 this in any way refresh your recollection as to  
11 whether or not you ever provided a summary, as that  
12 word is used in the sentence I just read?

13 A I have no recollection of providing  
14 that summary.

15 Q Let's go back to the page we were  
16 looking at, the Results and Discussion. Again,  
17 that's on Winter 1, page CMO40356.

18 A Okay.

19 Q Without going into the details under  
20 this paragraph, these are the three --

21 A Which paragraph?

22 Q Of that page. I'll be more  
23 specific.

24 Without going into the details under  
25 the topics, which I will read, Design of insertion

Page 181

1 point, construction of vectors, and insertion of  
2 immunoglobulin Fv domain into pAb; these were the  
3 three concepts that you and John McCafferty were  
4 discussing while you were at Amersham prior to  
5 coming to CAT, isn't that so?

6 A No.

7 Q Which one were you not -- let me  
8 rephrase it.

9 Were you talking about the design of  
10 the insertion point?

11 A We would have been talking about  
12 that, yes.

13 Q Were you --

14 MR VEZEAU: Wait a minute. You're  
15 saying as described in this entire paragraph? Or  
16 just in general?

17 MR SKILTON: I mean in general, and  
18 I think the line of question is made clear but I'll  
19 make it clear again.

20 BY MR SKILTON:

21 Q I'm not asking you --

22 MR VEZEAU: Please do.

23 BY MR SKILTON:

24 Q -- whether the specific discussion  
25 was as described here. I'm just asking you whether

Page 182

1 the concept of design of insertion point was one of  
2 the concepts that you talked about with John  
3 McCafferty prior to coming to CAT or prior to  
4 January 1st?

5 A The design -- you've used the word  
6 like concept. But the design of the insertion  
7 point or potential insertion points were used  
8 because, at the time, we would have no idea what  
9 was going to work.

10 Q And is it correct to say that you  
11 don't know, in reading this paragraph, how far you  
12 were, in fact, in that particular discussion with  
13 McCafferty as it relates to what is reported in  
14 this paragraph under Design of Insertion Point?

15 A If you're asking me where we'd got  
16 to by January 1990, which I think is the date  
17 you're talking about?

18 Q Yes.

19 A This doesn't talk to that because  
20 it's a different paper so...

21 Q And one of the things you talked  
22 about with him was construction of vectors?

23 MR VEZEAU: Objection. Lack of  
24 foundation.

25 THE WITNESS: Strictly, it would be

Page 183

1 how to construct vectors to get us to where we  
2 thought we might want to go.

3 BY MR SKILTON:

4 Q Did you talk about the subject of  
5 insertion of immunoglobulin Fv domain into pAb  
6 prior to coming to CAT?

7 A In theory, yes. Whether we'd have  
8 spoken about -- because, if you remember, the first  
9 work that John started was not on what would be  
10 call in this context the Fv domain. It would have  
11 been in the context of a single heavy chain VH  
12 domain, which was what we were considering the most  
13 likely approach to use.

14 Q The sentence at the bottom of this  
15 same page, 356, talks about the formation; it  
16 states, "The formation of the correct construct was  
17 confirmed by sequencing."

18 A Yes.

19 Q Do you know to what that is  
20 referring, that sentence?

21 A The previous sentences describe  
22 inserting a single chain for the D1.3 antibody into  
23 one of the FD vectors. So the statement at the end  
24 was, essentially, we confirmed we'd done what we  
25 thought we had done by sequencing.

Page 184

1 Q Is this particular sequencing,  
2 sequencing that was done after January 1st of 1990?

3 A Undoubtedly.

4 Q Pardon me?

5 A Undoubtedly.

6 Q In reading this description of  
7 Results and Discussion as to these three points,  
8 is it at all useful to you in trying to reconstruct  
9 how far you were on the design of insertion point  
10 or construction of vectors at the time that you  
11 joined CAT?

12 A No.

13 Q At the last sentence of construction  
14 of vectors a figure 2 is referred to. Do you see  
15 that?

16 A Can you?

17 Q On page 4 again of CM040356. The  
18 last sentence under the heading construction of  
19 vectors refers to a figure 2?

20 A Yes.

21 Q By looking at the article, does that  
22 help you at all to determine what figure 2 is,  
23 might have been?

24 A I can conjecture.

25 Q Could have been?

Page 185

Page 187

1 A I could conjecture, but I mean...

2 Q All right. Look at the article, and  
3 without linking it, is there a figure 2 in the  
4 article looking at McCafferty 11?

5 A There is a figure 2. Whether it's  
6 related is another matter.

7 Q Let's just go with the article.  
8 Where is figure 2 in the article, as you read it?

9 A I doubt that figure 2 appears in the  
10 article as defined here, since, as I said, the  
11 article would have changed considerably from the  
12 first, the early draft, which this would be.

13 The closest figure is probably  
14 figure 1, which at least has the sequence of some  
15 oligonucleotides within it.

16 Q I'm looking at page M029008 in the  
17 upper right-hand quadrant. Is that what you are  
18 looking at?

19 A That is figure 1, yes. You've got  
20 to make it clear, though, that the exact relation  
21 between this figure and the figure referred to here  
22 is unclear.

23 Explicitly the figure 2 here refers  
24 to several oligos, oligo 2, oligo 3, oligo 1, and  
25 I don't think any of those are particularly

1 asked and answered.

2 THE WITNESS: So I'll try and give  
3 the same answer as before. I believe I was  
4 involved heavily in the drafting of this document,  
5 particularly the bits outside of the experimental  
6 detail.

7 MR SKILTON: Thelma, Would you read  
8 the last --

9 THE WITNESS: Particularly the bits  
10 outside of the experimental details.

11 MR SKILTON: I still didn't pick it  
12 up.

13 COURT REPORTER: "A. Particularly  
14 the bits outside of the experimental details."

15 MR SKILTON: Ah, "the bits". Sorry.

16 THE WITNESS: Sorry.

17 MR SKILTON: I thought you were  
18 using a technical word on me.

19 THE WITNESS: I was.

20 MR VEZEAU: You got a little too  
21 technical for John.

22 BY MR SKILTON:

23 Q To be more specific, can you  
24 identify those portions that you likely -- strike  
25 that -- that you, in fact, did draft, as you sit

Page 186

Page 188

1 identified as that there. Also the designations of  
2 the vectors are different between the two.

3 MR SKILTON: Counsel, are you able  
4 to state where this document came from?

5 MR VEZEAU: No, not as I sit here.

6 MR SKILTON: Without asking you to  
7 comment on something you don't presently know the  
8 answer, I will ask on the record that the document  
9 be identified as to source and file. By that  
10 I mean where was it found and whose files was it  
11 in?

12 BY MR SKILTON:

13 Q I'm going to now turn your  
14 attention, if I may, to the priority document that  
15 we looked at briefly earlier, and it is Winter  
16 exhibit 14.

17 A That's the priority document with a  
18 paper clip?

19 Q Yes.

20 A Winter 14?

21 Q Winter 14. (Document found)

22 Dr Chiswell, what role did you have  
23 in the drafting of the document which begins at  
24 page CM000351?

25 MR VEZEAU: Objection. I believe

1 here today?

2 A No. I think we need to be -- we may  
3 have gone through this before -- but I would have  
4 actually provided a draft description. That would  
5 have been commented on by any number of people;  
6 Greg, John McCafferty, Caroline O'Brien.

7 Caroline O'Brien herself would have,  
8 to some extent, no doubt put her views of how to  
9 write a patent into what is this document.

10 Explicitly the origins of each particular word,  
11 I couldn't say as to that, suffice to say, I'm  
12 happy to say I was involved in the drafting of it.

13 I may have well have provided, let's  
14 say, the first draft of, probably, many of the  
15 sections up to example 1. I can't say "all"  
16 because I don't explicitly know all of them.

17 Q Let me refer you to some specific  
18 parts of the priority document, and I'm going to  
19 point you to CM000359 beginning at line 29, and  
20 take you through what is page 10, or 360 under the  
21 Bates stamp, to line 9. If you would read those?

22 A To line 9 on 360?

23 Q Yes.

24 A So essentially one paragraph?

25 Q Yes. (Witness reviewed the

Page 189

Page 191

1 document)  
2 MR VEZEAU: Dr Chiswell, I note that  
3 just the first sentence is referring to "these  
4 phages". If you need to read other portions of  
5 course in this document to understand this, you  
6 should do so.  
7 THE WITNESS: Thank you. I will.  
8 (Witness reviewed the document) Okay. Well, I've  
9 read that paragraph.  
10 BY MR SKILTON:  
11 Q Do you know who wrote that  
12 paragraph, Dr Chiswell?  
13 A Not explicitly, no.  
14 Q I don't want to burden the record  
15 with lengthy readings and the same answer, but I'm  
16 going to point you to another and, if the answer is  
17 the same, I'm going to proceed then in another  
18 fashion through the document.  
19 Again, read what you need to up to.  
20 I'm having you to continue to read on 10, but  
21 I want to point your attention to the sentences  
22 beginning on line 18 through line 32 on page 10 of  
23 CM000360.  
24 A So that's, "Short sequences derived  
25 from"?

Page 190

1 Q Yes. You're welcome to read up to  
2 that point, if your wish, to get context.  
3 A That's very kind of you. (Witness  
4 reviewed the document)  
5 Q Dr Chiswell, tell me when you're  
6 done.  
7 A Okay.  
8 Q Do you know who wrote the sentences  
9 beginning, "Short sequences" through "their own",  
10 as reflected in these statements at this location?  
11 A Again, I refer to the point I made  
12 about general drafting and then much re-drafting.  
13 I have no particular recollection of where this  
14 particular sentence, group of sentences --  
15 Q Is it -- I'm sorry, finish your  
16 answer.  
17 A -- were first written down or  
18 modified in whatever way.  
19 Q Is it at least a possibility in your  
20 mind, as you sit here today, that you were the  
21 author of these sentences?  
22 A It's at least a possibility I would  
23 have written something down which became these  
24 sentences, after discussion.  
25 Q Now, in this document -- strike that

1 question. Let me start over.  
2 When was the last time you reviewed  
3 this document closely?  
4 MR VEZEAU: Which document?  
5 MR SKILTON: The document that is  
6 the priority document. And I'm referring to that  
7 which starts at page CM00351.  
8 THE WITNESS: So that's the priority  
9 document as filed July 10th --  
10 MR SKILTON: Yes.  
11 THE WITNESS: -- 1990?  
12 BY MR SKILTON:  
13 Q When was the last time you reviewed  
14 that with care?  
15 A I have no real recollection of the  
16 last time. Likely, it would be on filing the PCT  
17 application, which is one year after this.  
18 Q I want to get specifically, if  
19 I can, to the question of editing of this document,  
20 to the best of your recollection.  
21 You have stated, I think at least  
22 twice on this record, that you believe that  
23 Dr Winter was involved in the editing of this  
24 document?  
25 A Yes.

Page 192

1 Q And you were involved in the editing  
2 of the document?  
3 A Yes.  
4 Q And Dr McCafferty was involved?  
5 A Yes.  
6 Q And the lawyer?  
7 A Caroline O'Brien, yes.  
8 Q Caroline O'Brien.  
9 A It also, just for the record, is  
10 possible that the other two employees of CAT at the  
11 time, which were Ron Jackson and Kevin Johnson,  
12 would have been asked to make comments as they saw  
13 it. I can't be explicit whether they were or they  
14 weren't. It would have been likely. But also, at  
15 some point, I'm not sure whether we involved Andrew  
16 Griffiths.  
17 Q Are drafts of this document  
18 available, if you know, today in the files of CAT?  
19 A I'm not aware. But I wouldn't be  
20 aware if they were. Well, I wouldn't be aware if  
21 they weren't.  
22 Q And your answer, obviously, would be  
23 the same for the files of Mewburn Ellis?  
24 A Mewburn Ellis can speak to their own  
25 files.

Page 193

1 Q Do you have knowledge as to any way  
2 of determining with accuracy today who drafted what  
3 portion of this document?

4 A Not if you want to get down into  
5 sentences or words. I think whole portions. If  
6 there was existing on some file a draft that was  
7 supplied by me or by John that was close enough.  
8 You could probably get into something of historical  
9 analysis, if you're interested in archaeology.

10 Q That may be. Do you recall having  
11 submitted a draft that you authored of what became  
12 this priority?

13 A I recall writing portions of the  
14 document. That would have been the first draft.  
15 But exactly how they got incorporated into the  
16 final draft, there would have been a lot of  
17 discussion between one and the other. Many  
18 changes.

19 Q And was this in the form of  
20 a document that you prepared?

21 A I would have prepared -- or the  
22 first draft as a document would have been prepared  
23 and circulated to the people to make comments on  
24 it.

25 Q You had a physical document that you

Page 194

1 prepared as the first draft of this priority  
2 application?

3 A There would have been a physical  
4 document.

5 MR SKILTON: I request that  
6 document.

7 BY MR SKILTON:

8 Q Dr Chiswell, do you remember any  
9 argument that was made in conjunction with the  
10 preparation of this priority document to the effect  
11 that there was a prejudice in the art against  
12 trying to display phage -- antibodies on phage?

13 A Could you repeat the question?

14 MR SKILTON: Yes.

15 (To the court reporter) Read it  
16 back, please.

17 COURT REPORTER: "Q. Dr Chiswell,  
18 do you remember any argument that was made in  
19 conjunction with the preparation of this priority  
20 document to the effect that there was a prejudice  
21 in the art against trying to display phage --  
22 antibodies on phage?"

23 THE WITNESS: I'm not sure in the  
24 context if I would recall exactly enough within the  
25 context of the drafting of this document. But

Page 195

1 since that's what the Smith papers clearly state,  
2 a prejudice against not so much antibodies but  
3 bigger things than George Smith's group had  
4 actually put in, the general prejudice in the field  
5 would have been against it anyway.

6 BY MR SKILTON:

7 Q Do you recall making that argument  
8 in your draft paper?

9 A As I said, I can't recall what was  
10 in the draft paper, what ended up in here, so  
11 I can't recall specifically when arguments were  
12 made like that.

13 Q Dr Chiswell, isn't it also true that  
14 many people were trying to display antibodies on  
15 phage about the time that you submitted this  
16 priority document?

17 MR VEZEAU: Objection. Lack of  
18 foundation.

19 THE WITNESS: Also lack of subsidy.  
20 It's not true, as far as I can see.

21 BY MR SKILTON:

22 Q Do you have in front of you,  
23 please, Winter exhibit 9?

24 A Give me five minutes.

25 Q Yes, you find it.

Page 196

1 A Yes, I have it. How's that?

2 Q Okay. In the context of your last  
3 answer, I'm going to refer you to a sentence that  
4 is in the 2.1, history, and that's on page  
5 CM040144. I asked you about this sentence before,  
6 but I'm going to read it again and then ask, in the  
7 context of your last answer, a further question.

8 "Many people in the field,  
9 including independently Greg and myself, realised  
10 that expressing antibodies on the surface of  
11 bacteria or phage would be attractive."

12 That sentence was true at the time  
13 you wrote it?

14 A I wrote it, yes.

15 Q Why was it, in your view, at that  
16 time that these many people realised that it would  
17 be attractive?

18 A I think we're talking here of a ,  
19 sort of, general statement; it would be a good  
20 thing if we could do this.

21 Q That is to say, display antibodies  
22 on phage, correct?

23 A All bacteria. --

24 MR VEZEAU: That's not what that  
25 sentence says. Excuse me. Lack of foundation.

Page 197

Page 199

1 THE WITNESS: Expressing antibodies  
 2 on the surface of bacteria or phage. The answer  
 3 isn't clear yet. People are thinking of ways of,  
 4 it will be a good thing. Like it will be a good  
 5 thing to cure cancer.  
 6 BY MR SKILTON:  
 7 Q And your view is that, despite this  
 8 sentence, the prejudice of in the art would have  
 9 discouraged anybody from undertaking the use of  
 10 phage for the display of antibodies? Is that what  
 11 I understand you to say?  
 12 A It wouldn't have encouraged them,  
 13 I don't think.  
 14 Q It would not have encouraged them?  
 15 Well, what encouraged you?  
 16 A Insight.  
 17 Q Did the Smith articles encourage  
 18 you, Dr Chiswell?  
 19 A The Smith articles, I think, were  
 20 part of the general scientific background which  
 21 gave you things to play with, you could try out.  
 22 There was a lot in the Smith articles that steer  
 23 you away from doing it, as you've no doubt heard  
 24 from others.  
 25 Q And a lot of the Smith articles tell

1 of antibodies on phage?  
 2 A I wouldn't agree to that particular  
 3 statement. What I would say was that the Smith  
 4 articles made a substantial portion of the  
 5 background science upon which we were able then to  
 6 take our work forward.  
 7 Q They were very material to you, were  
 8 they not?  
 9 A They were background. They were  
 10 material in the phage biology side. They were  
 11 material in how to handle phage. They weren't  
 12 material for antibodies because there's no mention  
 13 of antibodies at all, in the context that we're  
 14 talking about here.  
 15 But sometime soon I wouldn't mind a  
 16 coffee break. So if you want to break now or a bit  
 17 later, it's up to you.  
 18 MR SKILTON: It's ten after four.  
 19 Why don't we take a 10-minute break? And I'll try  
 20 to adjourn by five.  
 21 MR VEZEAU: Okay.  
 22 THE WITNESS: Okay.  
 23 VIDEOGRAPHER: We're going off the  
 24 record. The time is 1607.  
 25 (A short recess at 4.07 pm)

Page 198

Page 200

1 you how to do it, isn't that correct, Dr Chiswell?  
 2 A No.  
 3 MR VEZEAU: I object to that  
 4 question as lacking foundation and being  
 5 indefinite.  
 6 MR SKILTON: Good.  
 7 THE WITNESS: As far as I can  
 8 recall, there's no articles by Smith which say this  
 9 is how you should express an oligo of short  
 10 peptides on phage.  
 11 BY MR SKILTON:  
 12 Q Now, we've gone over several  
 13 discussions and documents authored by persons at  
 14 CAT concerning the Smith articles. You have read  
 15 them most recently just a few minutes' ago,  
 16 correct?  
 17 A Yes. Well, specifically about the  
 18 documents, but taken as a general statement, yes.  
 19 Q And clearly you would agree, would  
 20 you not -- that's a syntax objection, so I'm going  
 21 to try again.  
 22 Do you agree that the persons in CAT  
 23 who were doing the experiments, including yourself  
 24 and Dr McCafferty, used the information in the  
 25 Smith articles to commence your work on the display

1 (Resumed at 4.21 pm)  
 2 VIDEOGRAPHER: We're back on the  
 3 record. The time is 1621.  
 4 BY MR SKILTON:  
 5 Q Dr Chiswell, I want to take you again  
 6 to exhibit 14, the priority document, Winter 14,  
 7 and in particular this time to page 17, or  
 8 CM000367, and to the paragraph that talks about  
 9 generally embodiments and lists figures. Are you  
 10 with me on that?  
 11 A Not in those senses.  
 12 Q I'm reading beginning, "In order  
 13 that the invention...", and thereafter figures are  
 14 referred to, figure 1, figure 2, figure 3, figure  
 15 4?  
 16 A Yes.  
 17 Q Read with me the description of  
 18 figure 4. You need not do so on the record. As  
 19 a reference point, after you're done, feel free to  
 20 look at figure 4 on this document, which appears on  
 21 page 379.  
 22 A (Witness reviewed the document)  
 23 Mmmm.  
 24 Q Looking under 1 on page 379 there  
 25 are three oligos, oligo 1, oligo 2, oligo 3 that

Page 201

Page 203

1 are listed. Are these the sequences that John  
2 McCafferty had determined while he was at Amersham  
3 and prior to January 1st 1990?

4 MR VEZEAU: Objection. Lack of  
5 foundation.

6 THE WITNESS: Could you repeat the  
7 question, please?

8 COURT REPORTER: "Q. Looking under  
9 1 on page 379 there are three oligos, oligo 1,  
10 oligo 2, oligo 3 that are listed. Are these the  
11 sequences that John McCafferty had determined while  
12 he was at Amersham and prior to January 1st 1990?"

13 THE WITNESS: I'm not clear that we  
14 knew what sequences were determined prior to  
15 January 1990 and what modifications would have been  
16 made over the course of the next six months' work  
17 to this point.

18 BY MR SKILTON:

19 Q So the answer is you don't know?

20 A I don't know.

21 Q Going back to 367. The sentence  
22 that I'll refer you to and I will read in the  
23 record:

24 "The sequences shown were  
25 synthesized on an Applied Biosystems" -- and here

1 that sentence?

2 A No.

3 Q Looking again with me to figure 4,  
4 sequence of oligos and vectors, under 2, gene III,  
5 on page 379, is this what you and Dr McCafferty had  
6 determined as the cleavage signal site -- signal  
7 cleavage site -- as indicated in this figure?

8 A When would we have determined it?

9 Q At Amersham?

10 A I don't think scientifically we  
11 would have determined where the signal cleavage  
12 site would be. That would have been in the  
13 scientific literature before we started considering  
14 this.

15 Q Dr Chiswell, you understand that  
16 a United States patent, the 108 patent, was issued  
17 to CAT in the United States?

18 MR VEZEAU: I'll object to that as  
19 lacking a proper foundation as far as to whom it  
20 was issued.

21 BY MR SKILTON:

22 Q You understand that at least one of  
23 the assignees of the 108 patent was Cambridge  
24 Antibody Technology?

25 A Yes.

Page 202

Page 204

1 I'm not only going to mispronounce it but I think  
2 the word is misspelled.

3 A Yes, probably right.

4 Q And I'll say it,  
5 "...oligonucleotide" -- misspelled -- "synthesizer  
6 and are complimentary to the single stranded form  
7 of the fd-tet (they are in the anti-sense form with  
8 respect to gene III)."

9 Are you familiar with the  
10 synthesizer that is referred to in this sentence?

11 A You mean the actual machine?

12 Q Yes.

13 A No. The type of machine, yes.

14 Q Do you know whether or not this type  
15 of machine was at Amersham?

16 A This, if I remember correctly at the  
17 time, this was pretty much the standard machine for  
18 making oligonucleotides. I would have expected  
19 Amersham to have one, as I would have expected the  
20 MRC lab of molecular biology to have one, as I  
21 would expect contact manufacturers of  
22 oligonucleotides to have them.

23 Q So this doesn't give you any  
24 additional information to determine where, in fact,  
25 the synthesizer was located that is referred to in

1 Q What role, if any, did you have  
2 with respect to the prosecution of that patent  
3 application in the United States?

4 A I'll probably need to work on the  
5 timings of the prosecution of that application.

6 My belief is that over time I would  
7 have been less and less involved in the day-to-day  
8 prosecution of the patent and more involved in  
9 actually running the company.

10 Q Take a period of, roughly, 1994  
11 through 2000. During that period can you tell us  
12 when you would likely have been more actively  
13 involved?

14 A I would have been likely more  
15 actively involved in the early years than the later  
16 years, but already in '94 the company was growing  
17 to a size where it wasn't my prime responsibility  
18 to prosecute the patent.

19 Q Were you ever involved, in reference  
20 to the US patent application prosecution, in a  
21 discussion involving the Smith NIH grant?

22 A As I said, I became aware of it as  
23 part, I believe, of the European opposition  
24 proceedings. I don't recall any explicit  
25 discussion I've had or was part of.



Page 205

Page 207

1 Q You have become aware, have you not,  
2 that, in fact, the Smith grant application was not  
3 cited in the United States patent office?

4 A I'm not sure what has been cited and  
5 what hasn't been cited.

6 Q That's a fact that you are not aware  
7 of, even as you sit here today?

8 A Well, as I sit here today, I know  
9 there is an issue with the Smith patent  
10 application. The issue that I have been aware of  
11 is whether it was a public document.

12 Q My question was more specific. Do  
13 you know whether or not, as you sit here today, the  
14 Smith grant or Smith grant application, either  
15 document or both, were cited in the United States  
16 patent office?

17 MR VEZEAU: Read this question  
18 again.

19 MR SKILTON: I'll rephrase it.  
20 Let's not argue and fool around.

21 BY MR SKILTON:

22 Q Do you know whether the Smith grant  
23 application was cited in the United States patent  
24 office?

25 A I don't know that it was.

Page 206

Page 208

1 Q Do you know that it was not?

2 A "No" is probably too strong a word.  
3 I mean, probably it wasn't, from my knowledge.

4 Q Were you a part of any decision not  
5 to cite the Smith grant application in the United  
6 States patent office?

7 A The decision would have been one  
8 that our patent attorneys and our patent  
9 specialists would have made depending on --

10 Q Did -- I'm sorry, finish your  
11 answer.

12 A -- depending on what the rules were,  
13 what the laws was. I have no recollection of  
14 whether I was involved with that.

15 Q You have no recollection that you  
16 were asked whether or not you felt it should be  
17 cited?

18 A I had no basis to feel one way or  
19 the other whether it should be cited. That's a  
20 matter of law.

21 Q That question, to the extent it was  
22 considered, in your opinion was a question for the  
23 patent lawyers?

24 A Yes.

25 MR SKILTON: This is the next

1 exhibit.

2 (Exhibit 9 marked for identification)

3 BY MR SKILTON:

4 Q Dr Chiswell, I've placed in front of  
5 you a document that has been marked several times  
6 in these proceedings but has obtained a new  
7 deposition exhibit number of 9 in your deposition.  
8 First, I'll ask you have you ever seen this  
9 document before today, right now?

10 A Can I read it?

11 Q Yes, of course you can. Please do.

12 A On the basis that I haven't seen it  
13 before. But if you'll let me read it?

14 Q Yes, please.

15 While you're doing that, I'll state  
16 for the record that the difference between this  
17 document has been pointed out to me, and that is  
18 that this particular copy has the received stamp of  
19 June 6th of 1996, which we are advised is the stamp  
20 of the Mewburn Ellis firm.

21 A (Witness reviewed the document)  
22 Okay.

23 Q You've had a chance to read the  
24 document?

25 A Yes.

1 Q Have you ever seen this document  
2 before?

3 A No.

4 Q Did Dr McCafferty at any time, to  
5 your recollection, tell you that George Smith, in  
6 a preface to a book he was editing, had stated that  
7 he had the idea of "infectious antibodies" and had  
8 submitted a proposal to the NIH on November 1st  
9 1988?

10 A He didn't, not to my recollection.

11 Q Is it true that you had never heard  
12 of either the term "infectious antibodies" or of  
13 the fact of a grant submitted by Smith prior to  
14 reading this document?

15 A It's not true. I've already  
16 testified that I was aware of the existence of the  
17 grant application earlier.

18 Q Were you aware of the existence of  
19 that grant application as early as June 6th, 1996?

20 A I don't know the dates but I became  
21 aware, I understand, during the prosecution of the  
22 European opposition, which I believe was earlier,  
23 but the record will show when that was.

24 Q Let's take the date of June 6,  
25 1996. That's the stamp date. And we'll use it as



Page 209

Page 211

1 an on or about date; in the vicinity of June 6,  
2 1996.

3 Is it true that you do not recall  
4 John McCafferty, in this period, discussing with  
5 you the question of editing the Smith preface?

6 A I don't recall any discussions along  
7 that line.

8 Q And is it true that you do not  
9 recall any telephone conversation with Sean Walton  
10 concerning that subject during this time?

11 A This is this preface?

12 Q Yes.

13 A I don't recall either way.

14 Q Is it also true that you do not  
15 recall talking to Sean Walton about any NIH grant  
16 to Smith in the time frame of June 6th 1996?

17 A I don't recall any of that.

18 Q Is it your belief that you were not  
19 involved in any discussion concerning the Smith  
20 grant at this time frame?

21 A June 6th? That's my belief.

22 Q Were you given any instructions as  
23 to any provisions of the United States patent laws  
24 concerning the duty of candor to that office by an  
25 inventor?

Page 210

1 A I'm aware of the duty of candor.

2 Q What is your understanding of that  
3 duty?

4 A That it is a general duty to ensure  
5 the US patent office is aware of any information  
6 you have that is material and significant in terms  
7 of a particular patent application.

8 Q Were you at any time provided with  
9 any rules or regulations which apply to the conduct  
10 by those seeking a patent in the United States  
11 patent office?

12 A Again, I'll go back to I'm generally  
13 aware of this duty of candor. I have no specific  
14 recollection of a set of rules that someone gave  
15 me, but presumably someone has explained that to me  
16 otherwise why would I be aware of the general need?

17 Q Dr Chiswell, were you the most  
18 knowledgeable person at CAT concerning the  
19 agreement with Greg Winter to collaborate on the  
20 phage display of antibodies?

21 A What agreement? What time scale?

22 Q Let's talk about the oral agreement  
23 that you referred to.

24 A Yes.

25 Q What about any written agreements?

1 A Yes, that would be the same answer  
2 there.

3 Q And were you and Dr McCafferty the  
4 persons most knowledgeable concerning the early  
5 work done by you and Dr McCafferty on phage display  
6 of antibodies prior to the formation of CAT?

7 MR VEZEAU: I'll object to the  
8 question as being somewhat vague in connection with  
9 "work".

10 (To the witness) Would you like to  
11 hear the question repeated?

12 THE WITNESS: Yes.

13 COURT REPORTER: "Q. And were you  
14 and Dr McCafferty the persons most knowledgeable  
15 concerning the early work done by you and  
16 Dr McCafferty on phage display of antibodies prior  
17 to the formation of CAT?"

18 THE WITNESS: I would actually, sort  
19 of, take that question as, shall we say, being  
20 careful with the definition of "work". I would  
21 actually think it's more thought and consideration.

22 BY MR SKILTON:

23 Q Subject to that clarification?

24 A Yes.

25 Q Did there come a time after June

Page 212

1 30th of 1995 -- I'm using that as a time reference  
2 -- when any attorney from Mewburn Ellis asked you  
3 about the history of the phage display work that  
4 you were involved in both at Amersham and  
5 Cambridge?

6 MR VEZEAU: Now we're getting into  
7 attorney/client communications and I advise you  
8 that you should not respond to this question.  
9 That's privileged.

10 MR SKILTON: I would ask that it be  
11 re-read. I think the question asked for a yes or  
12 a no, and not disclosure --

13 MR VEZEAU: I disagree.

14 MR SKILTON: -- of any content.

15 MR VEZEAU: I'll listen to the  
16 question again, John, but I think I'm going to  
17 disagree with you.

18 MR SKILTON: Please read it back.

19 COURT REPORTER: "Q. Did there come  
20 a time after June 30th of 1995 -- I'm using that as  
21 a time reference -- when any attorney from Mewburn  
22 Ellis asked you about the history of the phage  
23 display work that you were involved in both at  
24 Amersham and Cambridge?"

25 MR VEZEAU: I will let that question

Page 213

1 go as a general topic now.  
 2 (To the witness) As a general  
 3 topic, if you can answer that question you should.  
 4 However, the communications are privileged. Do you  
 5 follow the distinction there?

6 THE WITNESS: Yes. But, frankly,  
 7 I'm not sure I can really recall what happened in  
 8 that time frame; whether there were any  
 9 discussions or not.

10 BY MR SKILTON:

11 Q Did you ever attempt to reconstruct  
 12 the history of your thought and/or work, first,  
 13 while you were at Amersham and then, later, when  
 14 you joined CAT, which led to the application for  
 15 the United States patent which we refer to as the  
 16 108 patent?

17 A The only reconstruction or  
 18 construction of the historical contacts was one of  
 19 the documents that you had in here, one of the MRC  
 20 documents, which refers to the history.

21 MR SKILTON: I'm going to refer you  
 22 to the patent itself then. Let's put that in front  
 23 of Dr Chiswell. The one I'm looking at is the  
 24 30(b)(6) copy, exhibit 9, which bears the Bates  
 25 stamp numbers of CM014253 through CM014362. A big

Page 214

1 document.

2 THE WITNESS: I'm looking forward to  
 3 reading this. Shall I go outside now?

4 MR SKILTON: Yes, why don't you go  
 5 outside and read it and, when you're done, come  
 6 back?

7 I want you to look with me at claim  
 8 1 of that document.

9 THE WITNESS: I'll read that.  
 10 (Witness reviewed the document)

11 BY MR SKILTON:

12 Q It appears on page CM014360, column  
 13 121. Please read it.

14 A (Witness reviewed the document )  
 15 Okay, I reserve the right to read it again.

16 Q And you certainly are entitled to.  
 17 Dr Chiswell, who made the scientific  
 18 contributions that relate to the invention claimed  
 19 in claim 1?

20 MR VEZEAU: I'm going to object to  
 21 at that question as being indefinite and vague.

22 THE WITNESS: The process that we  
 23 went through to determine inventorship was (1) that  
 24 it's a legal issue, so we essentially -- "we" being  
 25 at least Greg Winter and myself, along with the

Page 215

1 Mewburn Ellis people that would have included Ian  
 2 Armitage -- would have decided who had done what,  
 3 what contribution people had made intellectually,  
 4 and that process resulted in the inventors being  
 5 listed on the front.

6 BY MR SKILTON:

7 Q Which of the inventors did you  
 8 decide should be credited with claim 1?

9 A I don't believe we credited  
 10 individual claims to individual inventors  
 11 necessarily in such a stark way. We would have  
 12 said, what is their contribution to the patent, to  
 13 the claimed invention, which is actually all of the  
 14 claimed inventions, and also to be aware that the  
 15 claims that were submitted in the PCT, which is  
 16 when we had this prime discussion, would no doubt  
 17 have been modified during the prosecution with the  
 18 US patent office.

19 Q Are you aware that in the United  
 20 States patent office the examiner made a request  
 21 for a specific determination -- and I'm going to  
 22 put it in front of you -- of inventorship? Are you  
 23 aware generally of that topic?

24 A I can't say that I am, no.

25 Q Rather than paraphrasing it, I'll

Page 216

1 read the sentence to you.

2 I'm reading from, Mr Vezcau, and  
 3 I'll represent that I will read accurately from  
 4 it. I hope you have a copy of CM00526, and, in  
 5 particular, in that same document, which is one of  
 6 the documents we looked at during the deposition of  
 7 David Clough, page CM00530. Do you have a copy of  
 8 that?

9 MR VEZEAU: I do not have that  
 10 document.

11 MR SKILTON: Well, if you would like  
 12 to read with me. I'm simply going to read --

13 MR VEZEAU: No, no. Go ahead, John.  
 14 I assume you're going to read it properly. I'll  
 15 check it later.

16 MR SKILTON: I will represent to you  
 17 that I am reading from an office action of a patent  
 18 examiner in the United States by the name of Donald  
 19 E Adams, and the date of June 29, 1995 appears  
 20 above his signature line. This is one of many  
 21 statements that he made.

22 "Applicant is advised of the  
 23 obligation under 37 CFR, Section 156, to point out  
 24 the inventor and invention dates of each claim that  
 25 was not commonly owned at the time a later

1 invention was made in order for the examiner to  
 2 consider the applicability of potential 35 USC  
 3 Section 102 F4G prior art under 35 USC Section  
 4 103." [unchecked]  
 5 Was that sentence ever read to you?  
 6 A It just has been.  
 7 Q Prior to that?  
 8 A I don't remember anyone reading me  
 9 that sort of thing.  
 10 Q Was that request, in substance,  
 11 communicated to you?  
 12 A I can't recall it being communicated  
 13 absolutely to me.  
 14 Q On or around this date were you  
 15 asked to assist counsel in responding to this  
 16 request?  
 17 MR VEZEAU: (To the witness) Now,  
 18 there we specifically get into communications with  
 19 counsel, and I'd advise you, if you know the answer  
 20 to this question, that --  
 21 (To Mr Skilton) What you may ask,  
 22 John, by the way --  
 23 (To the witness) -- that if indeed  
 24 answering this question would entail revealing  
 25 attorney/client communications, you should not do

1 ears are tired.  
 2 BY MR SKILTON:  
 3 Q Is that answer true from that date  
 4 -- and I'll give the date again for the record --  
 5 June 29, 1995, all the way up until today?  
 6 A Yes. I mean, I think you're talking  
 7 of a period now where I wasn't really directly  
 8 involved at all in the legal prosecution of the  
 9 patent. Those sort of questions were down to the  
 10 attorneys, and they would have had discussions with  
 11 the specialist patent people at CAT rather than me.  
 12 Q You have no recollection of ever  
 13 having addressed this kind of an issue or topic  
 14 from that date until today, is that correct?  
 15 A That is correct.  
 16 MR SKILTON: Let me take just  
 17 a second here. I'll be back in five minutes. You  
 18 can take a break if you want to as well. Your  
 19 choice.  
 20 THE WITNESS: Since you promised I'd  
 21 go at 5 o'clock.  
 22 VIDEOGRAPHER: We're going off the  
 23 record. The time is 1656.  
 24 (A short recess at 4.56 pm)  
 25 (Resumed at 4.58 pm)

1 so.  
 2 (To Mr Skilton) But, of course, you  
 3 may ask, John, if you wish, whether this witness  
 4 knows the answer to that question.  
 5 MR SKILTON: Well, why don't we read  
 6 it back with that instruction and see whether I can  
 7 obtain an answer. I'm looking for a yes or a no to  
 8 this question.  
 9 COURT REPORTER: "Q. On or around  
 10 this date were you asked to assist counsel in  
 11 responding to this request?"  
 12 THE WITNESS: I have no recollection  
 13 of being asked.  
 14 MR SKILTON: Would you read that  
 15 back? I'm sorry, I didn't --  
 16 COURT REPORTER: "A. I have no  
 17 recollection of being asked."  
 18 MR VEZEAU: He has no recollection  
 19 of being asked.  
 20 Was that a good read back, Thelma?  
 21 MR SKILTON: That's a good read  
 22 back.  
 23 COURT REPORTER: You can do my job.  
 24 MR SKILTON: I only ask because, on  
 25 occasion, I don't pick it up clearly. Maybe my

1 VIDEOGRAPHER: We're back on the  
 2 record. The time is 1658.  
 3 BY MR SKILTON:  
 4 Q Dr Chiswell, I want to be sure  
 5 I understood our last series of answers, so I'm  
 6 going to go back just for a moment.  
 7 Do I understand correctly that, at  
 8 the time that you and Dr Winter and the attorneys  
 9 from Mewburn Ellis sat down and determined  
 10 inventorship, you made no attempt to separate out  
 11 inventorship by inventor on a claim-by-claim basis?  
 12 A I think what Greg and myself's role  
 13 would be, would be to explain to the patent people  
 14 precisely who had done what. After that, it's up  
 15 to the patent people to determine the legal  
 16 position.  
 17 Q Let me ask: Did you, in fact, in  
 18 your efforts here to determine inventorship, you  
 19 personally, did you ascribe inventorship on  
 20 a claim-by-claim basis?  
 21 A I didn't ascribe inventorship.  
 22 Q Did you attempt to say, for example,  
 23 with respect to the claims that were in front of  
 24 you, which I will represent was not the claims of  
 25 the US patent, did you make an effort to separate

Page 221

1 out on a claim-by-claim basis a particular  
 2 individual associated with the invention of that  
 3 claim?  
 4 A Personally, I would have just gone  
 5 and said, "This is what our people did, this person  
 6 did, that person did." How that then relates to  
 7 the claims and whether they could be ascribed to  
 8 individuals, it would have been a legal issue.  
 9 Q That was for the lawyers to  
 10 conclude?  
 11 A Yes.  
 12 Q As you sit here today, if I asked  
 13 you to make a list of those listed inventors on the  
 14 cover of exhibit 9, who were responsible for the  
 15 invention reflected in claim 1, could you do it?  
 16 A Not from a legal point of view.  
 17 Q Could you do it based on your  
 18 personal knowledge and as a matter of fact?  
 19 MR VEZEAU: I don't quite know what  
 20 that means, and how that differs from a legal point  
 21 of view, so I'll object to that question as being  
 22 indefinite.  
 23 THE WITNESS: Claim 1 is a very  
 24 broad -- or is a broad claim, so I think it's  
 25 conceivable, from a layman's point of view, that

Page 222

1 the contributions of a group of inventors, if they  
 2 need to be separated, would probably all contribute  
 3 to the generality of that claim.  
 4 BY MR SKILTON:  
 5 Q Is this an exercise that you're  
 6 doing now and had not done before?  
 7 A That's correct. That's only because  
 8 you asked me.  
 9 Q When you say a group of inventors,  
 10 do you mean most or do you mean all of the  
 11 inventors who are listed on the cover sheet of  
 12 exhibit 9?  
 13 A That phrase, since I've only just  
 14 considered the question here, it would be all.  
 15 Q I'm not going to prolong this  
 16 deposition unnecessarily, if I think I understand  
 17 your testimony, so let's go to another claim, claim  
 18 4. Again, it's a lengthy claim. You may read it.  
 19 You should read it, and then I'll ask you  
 20 a question.  
 21 A Okay. (Witness reviewed the  
 22 document) Okay.  
 23 Q Can you here identify the inventors  
 24 by looking at the cover sheet of this claim?  
 25 A Again, that is a very broad claim,

Page 223

1 so actually my answer would be much the same as for  
 2 the first one; the broadness of the claim would  
 3 imply that, to a first approximation, the group of  
 4 inventors would have contributed to this as well.  
 5 Q The entire group?  
 6 A Yes.  
 7 MR SKILTON: I'm going to terminate  
 8 this deposition based on the documents that are in  
 9 my possession, but I'm leaving it open as there are  
 10 a number of requests for documents that are not yet  
 11 in my possession. With that caveat, I suspend the  
 12 deposition today.  
 13 MR VEZEAU: Well, we'll have to deal  
 14 with your comments later. We believe you've  
 15 completed your deposition. We do have, though,  
 16 a couple of questions. I hate to prolong your day;  
 17 it has been long, but I want to get back to this  
 18 issue which was examined in rather extensive detail  
 19 in connection with your direct examination.  
 20 CROSS-EXAMINATION  
 21 BY MR VEZEAU:  
 22 Q To the best of your recollection,  
 23 when was it that indeed the invention, as set forth  
 24 in a claim, was first reviewed by you and anyone  
 25 else in connection with the issue of inventorship?

Page 224

1 A Well, the first drafting of claims  
 2 would likely have occurred coincidentally with the  
 3 filing of the PCT in 1991.  
 4 Q So do I understand correctly that,  
 5 with respect to any claimed invention relating to  
 6 the McCafferty case, it is the invention defined in  
 7 a claim that the first review with respect to  
 8 inventorship occurred between you and Dr Winter and  
 9 your attorney?  
 10 A Yes.  
 11 MR SKILTON: Objection as leading.  
 12 THE WITNESS: Yes.  
 13 BY MR VEZEAU:  
 14 Q And that was in connection, as  
 15 I understand from your prior answer, with respect  
 16 to the filing of the PCT application?  
 17 A That's correct.  
 18 Q Now, as a result of that review, do  
 19 I understand correctly that all of the inventors  
 20 named on the face of the 108 patent were identified  
 21 as being inventors?  
 22 A That's correct.  
 23 Q Indeed, do you have the final  
 24 written agreement, if you will, that was marked as  
 25 Jackson exhibit 10?

Page 225

Page 227

1 A I do.  
 2 Q You were examined about that today  
 3 during your direct. I want to direct your  
 4 attention to the first page, C13070, and to the  
 5 first Whereas clause. Do you see that?  
 6 MR SKILTON: Could you hold on for  
 7 just a second --  
 8 MR VEZEAU: Sure.  
 9 MR SKILTON: -- so I get the  
 10 document in my hands?  
 11 MR SANDERCOCK: What's the  
 12 document?  
 13 MR VEZEAU: Jackson exhibit 10.  
 14 MR SANDERCOCK: What is it?  
 15 MR VEZEAU: Administration  
 16 agreement.  
 17 MR SKILTON: Okay, proceed.  
 18 BY MR VEZEAU:  
 19 Q First of all, we've established,  
 20 I think, during your direct testimony that the date  
 21 of this agreement was 1st August 1991. Do you see  
 22 that?  
 23 A Yes.  
 24 MR SKILTON: We actually have a  
 25 number of dates that he testified to, but I will

Page 226

1 stipulate that that's what it states on the cover  
 2 sheet.  
 3 BY MR VEZEAU:  
 4 Q On the first page, the effective  
 5 date?  
 6 A I believe during my direct testimony  
 7 I corrected the, sort of, realisation there were  
 8 several agreements within that.  
 9 Q Yes, you did. That's correct.  
 10 A And this particular agreement was  
 11 1st August, '91.  
 12 Q Let's take a look at when you signed  
 13 the agreement at C13076. Do you see that?  
 14 A Yes.  
 15 Q Can you give us the date of your  
 16 signature?  
 17 A 1st August 1991.  
 18 Q Now, do you recall that that  
 19 signature, you placed your signature and entered  
 20 into this agreement after the filing of the PCT  
 21 application, which occurred on July --  
 22 MR SKILTON: Objection.  
 23 BY MR VEZEAU:  
 24 Q -- July 10, 1991?  
 25 MR SKILTON: Just so the question is

1 clear, you're now referring to a specific filing?  
 2 MR VEZEAU: Excuse me? Of the PCT  
 3 application.  
 4 MR SKILTON: Thank you.  
 5 THE WITNESS: To my understanding,  
 6 the PCT was filed on 10th July 1991, and 1st August  
 7 1991 is, by definition, after that.  
 8 MR VEZEAU: Thank you. That's why  
 9 you have a PhD and I do not.  
 10 BY MR VEZEAU:  
 11 Q Now, I'd like you to please read the  
 12 first Whereas clause on Jackson exhibit 10, C13070  
 13 into the record. And, because the viewers and  
 14 listeners of this record may have trouble with your  
 15 accent, I do ask you to read it slowly.  
 16 A I take that advice.  
 17 "Whereas, the Company and MRC  
 18 intend to be joint applicants of a final UK patent  
 19 application based on the priority UK Patent  
 20 Application number 9015198.6 for 'Binding  
 21 Substances', which priority application describes  
 22 an invention (the 'Invention') made jointly by  
 23 employees of the Company and employees of MRC."  
 24 Q The company, as you understand it,  
 25 in that Whereas clause was defined above in the

Page 228

1 preamble as being Cambridge Antibody Technology --  
 2 A That's correct.  
 3 Q -- Limited, is that correct?  
 4 A That's correct.  
 5 Q And at the time of this agreement,  
 6 do I assume correctly you agreed with the first  
 7 Whereas clause you just read into the record?  
 8 A Absolutely.  
 9 Q And, of course, do -- well, okay,  
 10 fine.  
 11 Now, at all times from January 1st  
 12 of 1990 through the filing of the PCT application  
 13 on July 10th of 1991, who paid Dr McCafferty's  
 14 salary as an employee?  
 15 A Cambridge Antibody Technology.  
 16 Q I'd like you to take a few moments,  
 17 if you will, and inform the viewer and listener of  
 18 this record about your severance of your  
 19 relationship with Amersham. Can you give us a  
 20 little perspective, a little history? How you  
 21 heard about your group being disbanded and what you  
 22 did after that?  
 23 MR SKILTON: Calls for a narrative.  
 24 MR VEZEAU: It sure does.  
 25 MR SKILTON: Well, it also prevents

Page 229

Page 231

1 objection on a timely basis, so I'd ask you to put  
2 the question more simply.

3 BY VEZEAU:

4 Q I'd like you to explain to us what  
5 you were informed when you learned that your group  
6 was to become redundant, and you were to be  
7 redundant. Please explain that term on the record.

8 A Okay. In what would be the early  
9 summer of 1989 the board of Amersham International,  
10 or at least its executive operating committee,  
11 decided that the group of fifty or so people,  
12 within which my group of ten or so was located,  
13 would be disbanded, that it was a cost that the  
14 company could no longer afford.

15 That whole group was dedicated to  
16 rather longer term research than the research over  
17 a few months horizons that were required of the  
18 product divisions.

19 As a result of that, the chief  
20 executive came to Pollards Wood to inform all the  
21 staff there -- I believe he did this the day after  
22 the decision was made -- he came personally to  
23 inform us that this was the case.

24 Subsequent to that there were  
25 discussions with personnel as to what the effect of

1 Amersham International, had ever closed a unit  
2 down. And my interpretation was that they,  
3 personnel in particular, felt guilty about the  
4 effect this would have on the morale of the whole  
5 company, so they were determined to treat the  
6 people in as humane a manner as possible.

7 Q So you were permitted to stay on  
8 through, apparently, the end of the year, is that  
9 correct?

10 A Yes. It was my choice as to when  
11 the date was for me to leave.

12 Q During the latter half of 1989, is  
13 it your clear recollection that you did inform the  
14 officials at Amersham of your intention to start an  
15 antibody company?

16 A Absolutely.

17 MR SKILTON: Leading.

18 THE WITNESS: Absolutely.

19 BY MR VEZEAU:

20 Q And did you receive any  
21 encouragement or any -- let me withdraw that  
22 question.

23 What was said to you in that  
24 connection, if anything, by management at Amersham?

25 A I think there was a general

Page 230

Page 232

1 this would be, and it was made explicitly clear  
2 that there would be -- that people would be offered  
3 other jobs within Amersham and, if they didn't want  
4 to take them, they would be made redundant and  
5 would be offered what in the UK would be standard  
6 terms of severance payments and conditions for that  
7 redundancy.

8 I personally, over the course of the  
9 next month or so, was asked whether I wanted to  
10 remain an employee of Amersham International in  
11 another form, and several positions were offered.  
12 I said, no, my clear intention was not to remain an  
13 employee; it was to form a new company based on  
14 our antibody engineering skills.

15 That was made clear to my group. It  
16 was made clear to my management. It was made clear  
17 to the Amersham personnel people. And, in  
18 discussions, particularly with the Amersham  
19 personnel, the director, I think, to paraphrase the  
20 discussions, "It is clear you want to set up a new  
21 company. That's fine. Let us know when you want  
22 to leave."

23 Q When did --

24 A And I should say, in context, that  
25 this was the first time that the company, this is

1 encouragement that, "If you don't want to take the  
2 jobs here, then, great, form a new company; hope  
3 it's successful."

4 MR VEZEAU: Would you give me just  
5 one minute, please?

6 MR SKILTON: We'll take two minutes  
7 ourselves while you're consulting.

8 VIDEOGRAPHER: We're going off the  
9 record. The time is 1716.

10 (A short recess at 5.16 pm)

11 (Resumed at 5.19 pm)

12 VIDEOGRAPHER: We're back on the  
13 record. The time is 1719.

14 MR VEZEAU: Dr Chiswell, we have no  
15 further questions of you on cross-examination.  
16 Thank you.

17 THE WITNESS: Okay, thank you.

18 MR SKILTON: Cross-examination being  
19 a relative term on this record.

20 I do have just a few followup.

21 RE-DIRECT EXAMINATION

22 BY MR SKILTON:

23 Q In answering Mr VezEAU's questions,  
24 with respect to inventorship questions, you used  
25 the date of July 10, 1991.

Page 233

Page 235

1 I'm going to ask you, with reference  
 2 to the date of July 10, 1990, the date of the first  
 3 priority document, were all twelve inventors  
 4 working on this project as of this date July  
 5 10, 1991 -- '90, sorry?  
 6 A Can we be clear about the date?  
 7 Q Yes, 1990.  
 8 A As of July 10th 1990, no, all the  
 9 inventors weren't working on it.  
 10 Q Are you able to tell us, from  
 11 memory, when any or all of these inventors first  
 12 started their work with respect to this project?  
 13 A From memory, which will be  
 14 imperfect, I could tell you that John McCafferty  
 15 started, as you know. Andrew Griffiths contributed  
 16 early within 1990. Ron Jackson joined CAT in May  
 17 of 1990, and didn't begin work on this but began  
 18 work on it some time subsequent to that. And Kevin  
 19 Johnson, similarly, although he joined also in May  
 20 of 1990. But, beyond that, I don't think I would  
 21 be the right person to answer those questions.  
 22 Q I'm sorry to prolong the record, but  
 23 I want to ask in reference to your last answer,  
 24 then, for you to go back to the patent claims  
 25 again.

Page 234

1 And I'm going to ask you, then, with  
 2 respect to claim 2, can you tell me, was this claim  
 3 one that was jointly invented by all of the  
 4 inventors listed on the cover sheet?  
 5 MR VEZEAU: I'm going to object to  
 6 that question as being outside the scope of cross.  
 7 MR SKILTON: I think not. It's a  
 8 followup to the last answer he just gave.  
 9 MR VEZEAU: I think it's head on,  
 10 John.  
 11 THE WITNESS: Explicitly, this claim  
 12 wasn't written in July 1990, and you're asking me a  
 13 question about July 1990.  
 14 BY MR SKILTON:  
 15 Q I'm asking whether this is a claim  
 16 that all twelve inventors jointly invented?  
 17 MR VEZEAU: That's precisely why  
 18 I objected. This is outside the scope of cross.  
 19 MR SKILTON: I think not. By the  
 20 way, we have no judge to rule, so my ruling is that  
 21 I get to ask the question.  
 22 MR VEZEAU: Thelma, if you can find  
 23 the question, would you read it back, please?  
 24 COURT REPORTER: The last one?  
 25 MR VEZEAU: Yes.

1 COURT REPORTER: "Q. I'm asking  
 2 whether this is a claim that all twelve inventors  
 3 jointly invented?"  
 4 THE WITNESS: On the first reading  
 5 and on the face of it, that is a more restricted  
 6 claim than either of the claims we've discussed.  
 7 BY MR SKILTON:  
 8 Q So not all twelve?  
 9 A I couldn't tell you.  
 10 Q You don't know?  
 11 A No.  
 12 Q Is the same answer true with respect  
 13 to claim 3?  
 14 MR VEZEAU: The same objection.  
 15 Once again, we're outside the scope of cross.  
 16 THE WITNESS: Well, there were  
 17 thirty-nine claims to the patent.  
 18 BY MR SKILTON:  
 19 Q Yes, and I'm doing my best to make  
 20 sure that I only ask a few questions here.  
 21 A That was claim 3?  
 22 Q Yes.  
 23 A Claim 3 is one of the general claims  
 24 that again, I believe, would be part of a general  
 25 broadness of the invention encompassed by everyone.

Page 236

1 Q Is it your view that that claim was  
 2 jointly invented by all twelve inventors?  
 3 A It's of the same type but it is very  
 4 general to the overall invention.  
 5 Q So the answer is "yes"?  
 6 A Yes.  
 7 Q And I want to take you, finally, to  
 8 two specific claims, 23 and 24. With respect to  
 9 claim 23, after you read it, was this a claimed  
 10 invention that was jointly invented by all of the  
 11 inventors listed?  
 12 MR VEZEAU: Again, this question is  
 13 outside the scope of direct -- I'm sorry, outside  
 14 the scope of cross.  
 15 THE WITNESS: (Witness reviewed the  
 16 document) This claim, 23, goes back via claim 14,  
 17 which themselves go back via 1, 2, 3 and 4. So  
 18 I'll stick to my answers on 1, 2, 3, 4 which I've  
 19 already given. This claim would, sort of, have a  
 20 degree of derivation which will be different.  
 21 MR SKILTON: Thank you, Dr Chiswell.  
 22 Subject to my comments at the conclusion of my own  
 23 examination, that concludes this portion of the  
 24 examination.  
 25 MR VEZEAU: One moment, please.



Page 237

Page 239

1 (After a pause) I appreciate the  
2 time you've taken. We've gone until almost 5.30,  
3 Dr Chiswell, and I know you've had to travel to get  
4 here. Thank you very much.

5 We will ask you to do one further  
6 thing, though, at least, and that is to review the  
7 transcript of your deposition and make any  
8 corrections that you feel need to be made to  
9 accurately reflect your testimony.

10 We have waived signature in front of  
11 a notary, but we would ask that, if you need to  
12 make changes, you fill out an errata sheet which  
13 will be provided to you, and just sign it and that  
14 will be the end of it.

15 THE WITNESS: Thank you.

16 MR VEZEAU: Thank you. And we  
17 designate the transcript of this testimony and the  
18 video record as highly confidential under the  
19 protective order. Thank you.

20 VIDEOGRAPHER: This marks the end of  
21 today's deposition of Dr David Chiswell. The total  
22 number of tapes used was three. We're going off  
23 the record. The time is 1726.

24 (Deposition concluded sine die at 5.26 pm)  
25

1 I, Dr David Chiswell, am the  
2 deponent in the foregoing deposition. I have read  
3 the foregoing deposition and, having made such  
4 changes and corrections as I desired, I certify  
5 that the transcript is a true and accurate record  
6 of my responses to the questions put to me on  
7 Tuesday, 30th April 2002.

8  
9 Signed

10 GREGORY PAUL WINTER, PhD  
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Page 238

Page 240

1 ERRATA  
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25 Signature Date

1 CERTIFICATE OF COURT REPORTER  
2 I, Thelma Harries, Accredited  
3 Court Reporter, Member of the British Institute of  
4 Verbatim Reporters, do hereby certify that I took  
5 the stenotype notes of the foregoing deposition,  
6 and that the transcript thereof is a true and  
7 accurate record transcribed to the best of my skill  
8 and ability.

9 I further certify that I am  
10 neither counsel for, related to, nor employed by  
11 any of the parties to the action in which this  
12 deposition was taken, and that I am not a relative  
13 or employee of any attorney or counsel employed by  
14 the parties hereto, nor financially or otherwise  
15 interested in the outcome of the action.  
16  
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21  
22 THELMA HARRIES, MBIVR, ACR  
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'[1] 93:18	90:24	40:22 41:9 42:7	20006-1228 [1]	358 [1] 164:25
'67 [1] 125:4	11.41 [2] 90:25	43:17 46:11 46:13	2:10	36 [1] 4:18
'85 [1] 138:2	91:5	48:11 88:23 88:25	2001 [1] 127:5	360 [2] 188:20 188:22
'88 [1] 138:3	112 [1] 4:21	89:10 89:11 172:9	2002 [3] 1:18 5:9	367 [1] 201:21
'89 [1] 142:1	11th [2] 12:6 92:8	229:9 231:12	239:7	37 [1] 216:23
'90 [2] 87:1 233:5	12.23 [2] 118:12	1990 [62] 12:9	207 [1] 4:15	379 [4] 200:21 200:24
'91 [7] 82:24 82:24	118:13	14:10 20:21 20:25	21 [6] 73:2 76:13	201:9 203:5
85:2 85:3 85:22	12.30 [1] 90:14	22:16 24:7 28:17	77:9 80:14 81:2	383 [1] 18:23
85:23 226:11	121 [2] 4:18 214:13	37:4 37:15 54:2	81:11	39693 [1] 131:17
'92 [3] 103:5 103:9	122 [1] 3:7	57:5 58:12 68:21	213 [1] 4:21	39716 [1] 146:25
103:9	13 [9] 4:19 72:25	69:9 70:21 70:23	21st [1] 162:14	3DT [1] 1:22
'94 [1] 204:16	74:13 75:23 80:1	73:2 77:10 80:14	22 [6] 4:21 112:19	4 [11] 4:12 91:1
'95 [1] 17:6	86:3 158:8 158:9	81:2 81:11 82:6	113:20 118:19 118:21	91:9 184:17 200:15
'97 [5] 124:11 125:3	158:14	87:12 87:13 87:20	118:22	200:18 200:20 203:3
125:5 125:5 125:10	13.38 [1] 118:16	87:21 87:22 88:17	223 [1] 4:5	222:18 236:17 236:18
'Binding [1] 227:20	130 [1] 4:14	91:12 91:23 96:13	225 [1] 4:20	4.07 [1] 199:25
'Invention' [1] 227:22	139 [2] 70:11 72:1	98:25 100:6 140:22	22nd [2] 82:23 85:22	4.21 [1] 200:1
'inventors' [1] 77:3	14 [32] 4:19 18:21	152:14 153:3 153:6	23 [6] 4:11 19:22	4.56 [1] 219:24
'Shall [1] 93:16	24:19 26:2 26:6	155:12 156:21 166:24	20:1 236:8 236:9	4.58 [1] 219:25
00349 [1] 68:8	26:10 26:17 26:23	166:25 176:3 176:5	236:16	40 [2] 97:24 98:9
00CV00146 [2]	28:24 29:4 29:17	176:6 177:21 177:23	232 [1] 4:6	40356 [1] 175:21
1:6 5:8	30:3 31:18 66:7	178:4 182:16 184:2	24 [2] 49:7 236:8	469 [1] 98:24
013076 [1] 85:1	66:8 66:8 67:13	191:11 201:3 201:12	25 [6] 74:18 75:12	5 [4] 4:13 97:13
013086 [1] 85:18	67:21 67:21 68:6	201:15 228:12 233:2	75:20 98:25 158:13	97:16 219:21
0GG [1] 3:9	69:18 69:21 70:13	233:7 233:8 233:16	158:17	5.16 [1] 232:10
1 [38] 1:6 4:11	71:14 71:15 81:5	233:17 233:20 234:12	25-50 [1] 157:20	5.19 [1] 232:11
4:17 5:3 5:8	186:16 186:20 186:21	234:13	25/75 [1] 157:10	5.26 [1] 237:24
8:7 8:13 87:12	200:6 200:6 236:16	234:13	25th [1] 100:6	5.30 [1] 237:2
90:21 98:8 113:3	140 [1] 70:11	234:13	26th [2] 82:24 85:23	50 [7] 74:18 86:25
164:6 164:10 164:19	141 [1] 70:12	234:13	27 [2] 32:21 69:10	157:23 158:12 158:13
164:20 166:1 166:2	1437 [1] 161:12	234:13	27th [3] 37:14 132:6	158:16 158:17
167:10 178:16 179:23	15.03 [1] 161:19	234:13	132:19	50/50 [1] 157:9
180:17 185:14 185:19	1508 [1] 165:16	234:13	29 [3] 188:19 216:19	500 [1] 2:9
185:24 188:15 200:14	1520 [1] 165:20	234:13	219:5	525 [2] 2:19 3:4
200:24 200:25 201:9	156 [1] 216:23	234:13	2xTY [1] 174:25	53703 [2] 2:5
201:9 214:8 214:19	158 [1] 130:7	234:13	3 [20] 4:12 19:22	2:13
214:23 215:8 221:15	1600 [2] 2:19 3:4	234:13	20:3 20:4 69:25	6 [13] 4:5 4:13
221:23 236:17 236:18	1607 [1] 199:24	234:13	70:10 74:4 75:11	4:21 4:21 33:18
1.38 [1] 118:14	161 [1] 4:14	234:13	174:12 179:6 179:9	98:19 98:22 112:19
10 [26] 4:18 4:20	1621 [1] 200:3	234:13	185:24 200:14 200:25	118:19 118:22 208:24
20:20 24:7 28:17	164 [1] 4:17	234:13	201:10 235:13 235:21	209:1 213:24
70:23 82:8 84:11	1656 [1] 219:23	234:13	235:23 236:17 236:18	60661-3693 [2]
86:7 86:9 87:7	1658 [1] 220:2	234:13	108:3	2:20 3:5
121:3 153:3 153:6	166 [1] 2:9	234:13	3-day [1]	674 [1] 111:16
155:12 156:21 188:20	17 [1] 200:7	234:13	3.03 [1] 161:14	69 [1] 4:12
189:20 189:22 224:25	1716 [1] 232:9	234:13	3.08 [1] 165:17	693 [2] 111:23 112:2
225:13 226:24 227:12	1719 [1] 232:13	234:13	3.20 [1] 165:18	6th [5] 166:25 207:19
232:25 233:2 233:5	1726 [1] 237:23	234:13	30 [8] 1:18 4:21	208:19 209:16 209:21
10-minute [1] 199:19	178 [1] 4:20	234:13	4:21 112:19 118:19	7 [6] 4:14 33:18
10.17 [2] 56:13	18 [3] 4:19 91:12	234:13	118:21 118:22 213:24	71:6 71:7 130:2
56:14	189:22	234:13	69:9 96:8 212:1	130:6
10.37 [2] 56:15	186 [1] 4:19	234:13	212:20 239:7	700 [2] 104:7 132:21
56:17	18th [1] 96:8	234:13	31st [1] 6:20	709 [2] 104:7 145:18
102 [1] 217:3	19 [1] 34:14	234:13	32 [1] 189:22	716 [6] 104:7 146:23
103 [1] 217:4	195 [1] 4:18	234:13	32p [1] 112:8	147:2 147:3 147:10
108 [7] 11:6 18:13	1985 [2] 42:15 42:16	234:13	349 [2] 24:10 24:19	147:11
151:2 203:16 203:23	1987 [2] 163:3 164:3	234:13	35 [2] 217:2 217:3	72 [1] 4:19
213:16 224:20	1988 [2] 42:17 208:9	234:13	351 [1] 19:8	727 [2] 8:12 101:16
10th [10] 22:16 27:11	1988/89 [1] 115:2	234:13	354 [1] 168:10	74 [4] 103:20 104:2
28:4 68:21 71:17	1989 [24] 12:2	234:13	355 [1] 174:12	104:10 106:3
71:18 191:9 227:6	12:6 12:17 12:18	234:13	356 [2] 32:21 183:15	75 [4] 74:21 157:23
228:13 233:8	12:20 12:24 13:16	234:13	357 [3] 33:10 33:17	158:12 158:16
11 [6] 4:20 91:23	15:13 15:14 30:20	234:13	34:13	7th [1] 70:21
92:2 178:12 178:17		234:13		
185:4		234:13		
11.25 [2] 90:23		234:13		

8 [4] 4:11 4:14	204:15	77:10 77:12 82:12	231:24	21:25 27:21 27:21
161:15 161:22	activities [2] 110:19	82:13 82:15 83:3	amongst [1] 74:4	41:15 41:15 41:24
82152 [1] 2:15	110:23	84:21 84:24 85:7	amount [1] 142:3	41:24 43:8 43:11
85 [1] 147:25	activity [1] 44:13	85:11 85:13 85:15	analysing [1] 11:20	44:17 44:19 44:23
88 [1] 84:12	actual [10] 9:25	87:2 87:6 87:9	analysis [1] 193:9	49:21 52:18 64:20
8th [2] 125:19 130:20	30:11 50:9 67:21	87:15 89:15 92:12	Andrew [6] 23:20	75:7 83:3 83:19
9 [22] 4:15 4:18	71:19 71:23 72:11	94:3 161:3 210:19	27:18 153:16 153:19	85:21 88:22 97:9
4:21 31:7 36:11	153:20 153:25 202:11	210:21 210:22 224:24	192:15 233:15	98:16 100:2 100:9
36:20 56:20 69:9	Adams [1] 216:19	225:16 225:21 226:10	Anne [1] 17:4	102:19 108:16 135:9
94:12 157:17 158:18	add [1] 112:7	226:13 226:20 228:5	announced [1] 13:14	137:4 137:12 138:19
158:19 158:20 158:23	additional [1] 202:24	agreements [17] 86:24	announcement [5] 13:14	138:25 139:7 141:2
188:21 188:22 195:23	address [2] 91:16	86:24 87:11 88:10	13:18 13:22 14:9	141:5 141:14 141:17
207:2 207:7 213:24	104:18	88:15 88:20 89:1	15:25 16:14	141:22 153:20 172:18
221:14 222:12	addressed [1] 219:13	89:3 89:6 89:8	answer [67] 16:12	173:7 183:22 203:24
9.08 [3] 1:18 5:1	adjacent [1] 14:14	89:12 89:13 89:22	29:9 30:25 31:24	228:1 228:15 230:14
5:10	adjourn [1] 199:20	90:5 98:14 210:25	32:1 32:2 33:23	231:15
90 [1] 4:12	Administration [1] 225:15	226:8	38:21 39:18 40:5	anyway [1] 195:5
9015198.6 [3] 24:16	administrative [2] 84:23 85:11	ahead [4] 70:4	41:17 47:17 47:19	Apart [1] 154:4
24:22 227:20	advice [2] 26:25	84:18 91:18 216:13	48:20 48:23 49:1	appear [5] 43:14
93 [1] 104:6	227:16	al [6] 170:12 172:9	52:16 53:10 60:21	77:8 85:20 170:3
97 [1] 4:13	advise [2] 212:7	172:20 174:18 174:21	72:19 73:10 78:6	178:22
98 [1] 4:13	217:19	175:6	78:10 85:25 116:24	appeared [2] 79:21
Aaron [5] 64:11	advised [4] 13:11	alkali [1] 112:8	126:5 137:8 139:25	126:25
65:16 94:24 160:15	159:1 207:19 216:22	allow [2] 105:25	140:2 140:6 143:4	appearing [2] 7:8
161:7	advising [1] 117:18	138:24	144:10 147:25 152:15	7:12
ability [2] 141:21	afford [1] 229:14	allowed [1] 58:2	155:16 157:15 158:25	applicability [1] 217:2
240:8	afraid [1] 10:11	alluded [1] 97:7	159:21 160:7 160:20	Applicant [1] 216:22
able [7] 40:1 41:11	AG [3] 1:4 2:14	alluding [4] 39:10	165:2 169:1 178:13	applicants [1] 227:18
41:20 165:2 186:3	again [53] 14:24	53:19 114:10 114:23	186:8 187:3 189:15	application [46] 18:12
199:5 233:10	26:3 26:12 26:13	almost [1] 237:2	189:16 190:16 192:22	18:16 21:24 23:14
above [3] 64:9	31:19 32:16 33:5	alone [2] 104:4	196:3 196:7 197:2	24:6 24:13 25:13
216:20 227:25	33:11 34:1 36:15	141:8	201:19 206:11 211:1	27:10 66:6 77:3
absolute [1] 53:6	45:24 46:9 56:5	along [4] 106:11	213:3 217:19 218:4	77:11 78:4 83:5
absolutely [19] 28:8	69:16 69:17 84:2	145:6 209:6 214:25	218:7 219:3 223:1	83:12 84:25 85:19
28:10 34:22 42:11	93:12 94:22 106:21	alternative [2] 15:18	224:15 233:21 233:23	120:10 120:22 121:4
42:13 90:18 94:6	119:2 127:12 131:19	136:19	234:8 235:12 236:5	128:18 128:20 129:4
104:24 117:6 117:13	131:21 132:3 146:4	alternatively [1] 33:17	answered [2] 155:14	129:10 163:1 173:10
118:4 118:6 153:8	147:14 155:9 167:4	alternatives [1] 42:9	187:1	191:17 194:2 204:3
154:23 169:3 217:13	168:17 168:23 172:1	always [1] 89:16	answering [4] 29:8	204:5 204:20 205:2
228:8 231:16 231:18	175:25 177:11 180:16	ambiguity [1] 49:18	117:18 217:24 232:23	205:10 205:14 205:23
abstract [9] 105:8	181:19 184:17 189:19	ambiguous [5] 13:4	answers [2] 220:5	206:5 208:17 208:19
164:6 164:24 165:24	190:11 196:6 198:21	48:19 48:25 62:21	236:18	210:7 213:14 224:16
166:5 166:9 166:16	200:5 203:3 205:18	107:2	Anthony [2] 14:21	226:21 227:3 227:19
167:24 178:17	210:12 212:16 214:15	American [1] 151:5	14:22	227:20 227:21 228:12
abusing [1] 118:1	219:4 222:18 222:25	Amersham [71] 12:11	anti-biotin [1] 146:3	applications [1] 173:12
accent [2] 21:15	233:25 235:15 235:24	12:14 12:15 12:16	anti-sense [1] 202:7	applied [2] 128:11
227:15	236:12	12:17 12:21 12:23	anti-serum [2] 147:17	201:25
accept [1] 31:1	against [4] 194:11	13:13 13:22 13:25	147:21	apply [1] 210:9
according [3] 174:17	194:21 195:2 195:5	14:1 14:5 14:6	antibodies [47] 28:6	appreciate [1] 237:1
174:20 174:21	ago [5] 17:7 30:5	14:9 14:12 14:17	35:7 35:9 35:14	approach [5] 140:14
account [1] 77:23	113:11 119:19 198:15	14:23 15:4 15:8	36:3 39:7 39:21	140:19 140:19 142:17
Accredited [1] 240:2	agree [18] 10:15	15:15 15:18 15:19	42:4 42:22 104:19	183:13
accuracy [1] 193:2	20:20 32:20 47:5	16:15 17:14 17:16	105:5 106:19 106:24	approaches [1] 142:19
accurate [6] 161:4	47:7 48:1 48:7	17:24 35:3 35:7	107:12 107:15 108:22	appropriate [2] 96:19
170:14 171:4 171:8	84:19 86:24 95:15	35:17 35:24 36:4	115:5 115:16 115:24	144:22
239:5 240:7	95:19 156:7 166:10	36:6 48:12 48:17	116:6 116:10 119:12	approximation [1] 223:3
accurately [11] 32:17	166:12 175:11 198:19	49:4 50:16 50:18	120:2 120:7 123:17	April [15] 1:18
169:4 170:7 171:11	198:22 199:2	50:22 51:2 51:5	139:15 140:12 141:8	5:9 8:24 101:3
171:12 171:15 171:20	agreed [15] 12:24	51:6 51:7 51:15	141:12 169:8 170:9	103:5 103:9 103:10
173:5 173:13 216:3	64:11 65:16 72:4	137:23 137:25 138:4	194:12 194:22 195:2	110:19 125:4 125:18
237:9	72:7 86:25 90:15	138:8 138:13 138:19	195:14 196:10 196:21	125:19 132:6 132:18
ACR [2] 1:25 240:22	94:24 95:20 95:23	139:15 140:11 143:7	197:1 197:10 199:1	153:15 239:7
act [1] 19:15	100:8 160:16 161:6	144:7 181:4 201:2	199:12 199:13 208:7	archaeology [1] 193:9
action [3] 216:17	179:21 228:6	201:12 202:15 202:19	208:12 210:20 211:6	argue [3] 18:3
240:11 240:15	agreement [31] 77:2	203:9 212:4 212:24	211:16	66:23 205:20
actively [2] 204:12		213:13 228:19 229:9	antibody [56] 1:7	arguing [1] 18:4
		230:3 230:10 230:17	5:5 5:21 6:18	
		230:18 231:1 231:14	6:22 6:25 15:22	
			16:10 16:18 16:25	

<b>argument</b> [13] 59:14 59:19 60:12 60:15 61:2 61:18 61:25 62:8 123:5 123:10 194:9 194:18 195:7	<b>attempt</b> [6] 77:20 77:23 78:1 213:11 220:10 220:22	<b>away</b> [6] 15:5 22:17 36:16 82:6 115:25 197:23	2:17 74:24 74:25 79:8 122:13 125:25 126:17	84:17 85:24 90:11 90:13 90:14 90:17 118:9 118:24 138:11 161:10 199:16 199:16 199:19 219:18
<b>arguments</b> [18] 74:23 74:25 75:3 121:22 122:7 122:12 122:18 123:2 124:8 125:25 126:17 126:21 126:23 127:20 128:10 129:9 135:14 195:11	<b>attempting</b> [3] 61:11 120:7 145:10	<b>b</b> [8] 4:21 4:21 112:19 118:19 118:21 118:21 118:22 213:24	<b>belief</b> [13] 26:14 28:10 28:11 28:12 45:24 53:5 57:24 112:24 131:5 178:15 204:6 209:18 209:21	<b>brief</b> [2] 108:10 133:5 <b>briefly</b> [1] 186:15 <b>bring</b> [5] 50:8 51:11 51:13 58:7 59:8
<b>arise</b> [1] 142:23	<b>attendance</b> [2] 2:7 3:2	<b>back-to-front</b> [1] 104:3	<b>benefits</b> [1] 75:4	<b>bringing</b> [1] 58:11
<b>arising</b> [1] 38:1	<b>attention</b> [8] 38:13 39:2 40:19 114:24 159:7 186:14 189:21 225:4	<b>background</b> [7] 102:1 138:9 138:10 150:19 197:20 199:5 199:9	<b>Bernhard</b> [2] 2:14 5:19	<b>British</b> [6] 24:6 25:13 26:20 27:10 124:16 240:3
<b>Armitage</b> [3] 78:13 78:20 215:2	<b>attorney</b> [5] 25:23 212:2 212:21 224:9 240:13	<b>backwards</b> [1] 51:19	<b>best</b> [12] 21:23 29:23 76:20 89:7 129:12 136:14 138:16 144:20 191:20 223:22 235:19 240:7	<b>broad</b> [6] 54:22 104:12 150:16 221:24 221:24 222:25
<b>arranged</b> [2] 132:10 132:20	<b>attorney's</b> [1] 160:19	<b>bacteria</b> [9] 39:8 39:21 39:24 43:15 46:3 133:9 196:11 196:23 197:2	<b>better</b> [4] 32:4 33:20 101:17 180:5	<b>broader</b> [2] 126:2 126:4
<b>arrangement</b> [1] 152:16	<b>attorney/client</b> [2] 212:7 217:25	<b>bacterio</b> [1] 39:13	<b>between</b> [30] 40:9 51:5 53:23 53:24 54:1 57:1 57:4 58:11 58:22 67:15 67:24 68:2 82:15 83:3 87:11 88:6 89:9 89:20 96:9 152:17 152:22 154:17 157:20 158:12 158:16 185:21 186:2 193:17 207:16 224:8	<b>broadly</b> [2] 125:22 126:14
<b>arranging</b> [2] 132:19 134:7	<b>attorneys</b> [5] 19:16 115:22 206:8 219:10 220:8	<b>Banbury</b> [4] 8:22 101:3 103:5 112:22	<b>brought</b> [12] 51:9 57:12 57:19 57:24 58:1 58:14 58:21 59:1 59:10 122:22 122:25 175:22	<b>broadness</b> [2] 223:2 235:25
<b>arrays</b> [1] 102:25	<b>attractive</b> [4] 39:8 39:22 196:11 196:17	<b>Barbas</b> [1] 104:25	<b>build</b> [1] 58:2	<b>brought</b> [12] 51:9 57:12 57:19 57:24 58:1 58:14 58:21 59:1 59:10 122:22 122:25 175:22
<b>arrival</b> [1] 144:16	<b>attributed</b> [1] 103:22	<b>based</b> [8] 16:9 73:25 145:10 175:8 221:17 223:8 227:19 230:13	<b>big</b> [1] 213:25	<b>built-up</b> [1] 172:4
<b>arrived</b> [1] 140:21	<b>audience</b> [3] 148:8 150:4 171:11	<b>basic</b> [1] 19:14	<b>bigger</b> [2] 141:11 195:3	<b>bulletin</b> [2] 149:17 150:6
<b>arrow</b> [1] 112:7	<b>August</b> [24] 70:13 70:21 70:23 71:6 71:7 73:2 76:13 77:9 80:14 81:2 81:11 82:16 82:20 84:24 85:2 85:4 87:1 87:13 133:12 133:19 225:21 226:11 226:17 227:6	<b>basis</b> [12] 7:11 62:20 76:4 91:18 117:15 166:21 206:18 207:12 220:11 220:20 221:1 229:1	<b>bind</b> [1] 146:13	<b>burden</b> [1] 189:14
<b>art</b> [14] 11:25 42:10 43:12 44:12 45:20 110:16 115:21 141:13 169:5 169:15 194:11 194:21 197:8 217:3	<b>author</b> [2] 57:24 190:21	<b>Bates</b> [14] 8:11 18:22 20:19 24:4 70:10 84:6 84:9 91:9 97:17 98:23 130:6 161:24 188:21 213:24	<b>Binding</b> [1] 19:5	<b>Burton</b> [1] 104:25
<b>article</b> [15] 133:22 138:2 138:3 166:23 169:13 172:18 178:22 179:1 184:21 185:2 185:4 185:7 185:8 185:10 185:11	<b>authored</b> [3] 175:24 193:11 198:13	<b>bear</b> [1] 70:22	<b>biological</b> [3] 44:14 64:21 135:12	<b>C</b> [2] 2:1 3:1
<b>articles</b> [10] 101:12 134:6 197:17 197:19 197:22 197:25 198:8 198:14 198:25 199:4	<b>authorship</b> [1] 65:9	<b>bearing</b> [3] 98:25 130:19 161:23	<b>biology</b> [6] 57:8 172:23 174:2 175:17 199:10 202:20	<b>C-h-a-m-b-r-c</b> [1] 125:16
<b>articulated</b> [1] 43:3	<b>autumn</b> [6] 40:22 41:9 43:16 46:11 46:13 48:11	<b>bears</b> [13] 8:11 18:22 20:19 24:4 37:3 68:15 70:10 82:8 82:21 91:9 98:23 130:5 213:24	<b>Biosystems</b> [1] 201:25	<b>C013070</b> [1] 84:11
<b>ascribe</b> [4] 92:23 93:20 220:19 220:21	<b>available</b> [9] 78:23 79:19 85:9 139:5 139:9 175:17 176:21 177:15 192:18	<b>became</b> [15] 13:9 15:22 17:23 18:12 107:18 120:5 120:5 141:2 150:14 156:17 178:17 190:23 193:11 204:22 208:20	<b>bit</b> [7] 65:10 119:18 133:10 135:15 146:10 166:8 199:16	<b>C017780</b> [1] 118:25
<b>ascribed</b> [1] 221:7	<b>aware</b> [62] 9:3 9:4 17:17 39:14 43:12 44:12 45:19 50:17 66:21 82:5 88:7 88:11 90:5 106:16 107:9 107:11 107:14 107:17 107:18 120:5 120:5 120:8 120:9 120:17 123:23 128:7 128:9 128:13 129:1 129:23 129:25 134:20 136:13 137:18 145:5 150:17 152:4 156:11 156:13 156:14 156:17 160:12 160:13 160:17 160:25 192:19 192:20 192:20 204:22 205:1 205:6 205:10 208:16 208:18 208:21 210:1 210:5 210:13 210:16 215:14 215:19 215:23	<b>become</b> [10] 12:7 12:16 13:12 107:17 120:17 156:11 156:13 156:14 205:1 229:6	<b>bits</b> [6] 20:10 109:15 187:5 187:9 187:14 187:15	<b>C13070</b> [2] 225:4 227:12
<b>aspects</b> [3] 44:8 83:5 153:13	<b>assign</b> [2] 54:18 56:2	<b>begin</b> [2] 88:21 233:17	<b>board</b> [5] 100:2 100:2 124:21 125:11 229:9	<b>C13076</b> [1] 226:13
<b>assignees</b> [1] 203:23	<b>assignment</b> [4] 51:14 51:17 62:10 130:19	<b>beginning</b> [15] 12:1 17:3 19:4 84:2 84:3 87:18 91:3 134:24 141:13 161:17 168:10 188:19 189:22 190:9 200:12	<b>Boehringer</b> [3] 132:12 132:12 132:14	<b>Calls</b> [1] 228:23
<b>assist</b> [2] 217:15 218:10	<b>associated</b> [1] 221:2	<b>begins</b> [9] 5:2 19:4 19:7 31:6 32:20 53:20 174:14 178:16 186:23	<b>bogged</b> [1] 30:24	<b>Cambridge</b> [39] 1:7 1:22 3:7 3:8 5:5 5:13 5:21 6:18 6:22 6:24 15:22 16:18 16:25 21:25 49:12 49:20 51:20 52:5 52:17 72:14 72:15 74:24 75:6 83:3 83:19 88:22 97:8 98:15 98:17 100:2 100:9 102:19 141:2 154:12 203:23 212:5 212:24 228:1 228:15
<b>assume</b> [15] 25:24 26:3 26:13 34:24 74:1 91:16 112:8 127:10 146:4 147:24 167:16 176:4 176:20 216:14 228:6	<b>assumes</b> [1] 157:1	<b>behalf</b> [8] 2:2	<b>book</b> [11] 47:8 48:1 50:12 50:13 79:21 102:1 172:22 173:20 173:21 175:3 208:6	<b>Cambridgeshire</b> [1] 1:22
<b>assuming</b> [1] 132:19	<b>assumption</b> [3] 47:6 57:25 123:7		<b>bottom</b> [4] 33:17 131:23 132:5 183:14	<b>cancer</b> [1] 197:5
<b>attached</b> [3] 37:7 37:12 70:19			<b>bought</b> [2] 57:13 57:15	<b>candid</b> [1] 114:25
			<b>bound</b> [1] 104:3	<b>Candidly</b> [1] 29:6
			<b>bow</b> [1] 127:8	<b>candor</b> [3] 209:24 210:1 210:13
			<b>break</b> [15] 56:9	<b>cannot</b> [1] 51:12
				<b>capacity</b> [1] 145:14

## DR DAVID CHISWELL

## CondensIt™

## capital - concern

<b>capital</b> [1] 98:10	<b>CH1</b> [1] 133:6	<b>cite</b> [1] 206:5	<b>CM000360</b> [1] 189:23	149:15 186:7
<b>care</b> [1] 191:14	<b>chain</b> [6] 108:21 119:12 153:20	<b>cited</b> [8] 128:20 205:3 205:4 205:5 205:15 205:23 206:17 206:19	<b>CM000367</b> [1] 200:8	<b>commentary</b> [2] 45:8 177:22
<b>careful</b> [3] 143:13	183:11 183:22	<b>Civil</b> [1] 62:25	<b>CM00349</b> [1] 24:8	<b>commented</b> [1] 188:5
<b>Caroline</b> [9] 20:14	<b>chairman</b> [4] 100:1	<b>claim</b> [33] 63:22	<b>CM00526</b> [1] 216:4	<b>commenting</b> [1] 20:9
21:10 22:6 23:11	124:16 124:21 125:11	157:19 214:7 214:19	<b>CM00530</b> [1] 216:7	<b>comments</b> [9] 103:16
78:14 188:6 188:7	<b>Chambre</b> [1] 125:14	215:8 216:24 221:3	<b>CM014134</b> [1] 130:7	103:21 128:10 136:3
192:7 192:8	<b>chance</b> [7] 44:23	221:15 221:23 221:24	<b>CM014154</b> [1] 130:16	136:5 192:12 193:23
<b>carried</b> [1] 76:8	74:7 162:8 167:20	222:3 222:17 222:17	<b>CM014253</b> [1] 213:25	223:14 236:22
<b>case</b> [20] 1:5 5:7	168:16 171:23 207:23	222:18 222:24 222:25	<b>CM014360</b> [1] 214:12	<b>commercial</b> [1] 141:8
11:5 22:18 54:10	<b>change</b> [1] 120:2	223:2 223:24 224:7	<b>CM014362</b> [1] 213:25	<b>commercialisation</b> [1] 37:25
62:24 64:20 68:19	<b>changed</b> [3] 33:7	234:2 234:2 234:11	<b>CM030229</b> [1] 24:5	<b>committee</b> [1] 229:10
79:12 79:16 117:2	179:3 185:11	234:15 235:2 235:6	<b>CM039670</b> [1] 8:11	<b>common</b> [1] 175:13
118:2 120:25 125:22	<b>changes</b> [4] 139:9	235:13 235:21 235:23	<b>CM039711</b> [1] 148:19	<b>commonly</b> [1] 216:25
126:13 131:5 161:9	193:18 237:12 239:4	236:1 236:9 236:16	<b>CM039727</b> [1] 101:15	<b>communicated</b> [2] 217:11 217:12
178:18 224:6 229:23	<b>characterise</b> [2] 22:24	236:16 236:19	<b>CM040129</b> [1] 91:10	<b>communication</b> [1] 163:17
<b>cases</b> [1] 7:23	170:16	<b>claim-by-claim</b> [3] 220:11 220:20 221:1	<b>CM040131</b> [1] 91:10	<b>communications</b> [7] 36:8 86:20 116:25
<b>CAT</b> [53] 4:21	<b>characterising</b> [1] 109:20	<b>claimed</b> [7] 65:5	<b>CM040138</b> [1] 70:11	212:7 213:4 217:18
4:21 7:20 11:23	<b>check</b> [5] 36:23	76:19 214:18 215:13	<b>CM040144</b> [3] 38:14	217:25
12:4 12:8 20:24	70:25 103:23 104:23	215:14 224:5 236:9	94:18 196:5	<b>community</b> [1] 169:19
20:24 22:4 30:20	216:15	<b>claiming</b> [3] 62:17	<b>CM040356</b> [1] 184:17	<b>companies</b> [1] 141:8
51:11 71:20 79:20	<b>checkers</b> [1] 57:21	63:17 76:22	<b>CM040463</b> [1] 161:25	<b>company</b> [26] 1:7
79:24 82:15 85:9	<b>checking</b> [1] 8:18	<b>claims</b> [11] 215:10	<b>CM040465</b> [1] 161:24	5:6 15:21 16:9
85:16 87:11 88:6	<b>chemicals</b> [1] 50:9	215:15 220:23 220:24	<b>CM040466</b> [1] 97:17	86:17 88:25 89:17
100:17 112:19 114:1	<b>Chicago</b> [2] 2:20	221:7 224:1 233:24	<b>CM040467</b> [1] 97:17	89:20 89:24 102:20
122:9 122:13 124:2	3:5	235:6 235:17 235:23	<b>CM040468</b> [1] 98:23	108:24 141:1 141:5
124:12 125:25 126:17	<b>chief</b> [3] 124:19 124:20	236:8	<b>CMO30693</b> [1] 112:2	141:20 204:9 204:16
140:15 141:9 152:17	229:19	<b>clarification</b> [1] 211:23	<b>CMO40353</b> [1] 164:25	227:17 227:23 227:24
152:22 152:24 154:12	<b>Chiswell</b> [99] 1:14	<b>classification</b> [2] 106:7 106:15	<b>CMO40356</b> [1] 180:17	229:14 230:13 230:21
169:7 172:2 176:18	4:3 4:11 4:11	<b>classified</b> [1] 106:10	<b>CO17780</b> [1] 114:11	230:25 231:5 231:15
176:20 181:5 182:3	4:12 4:12 4:13	<b>clause</b> [6] 39:19	<b>coffee</b> [1] 199:16	232:2
183:6 184:11 192:10	4:13 4:14 4:14	83:9 225:5 227:12	<b>coincidentally</b> [1] 224:2	<b>compensated</b> [1] 7:13
192:18 198:14 198:22	4:15 5:3 6:7	227:25 228:7	<b>coincides</b> [1] 25:15	<b>compensation</b> [1] 7:21
203:17 210:18 211:6	6:13 8:5 10:16	<b>clear</b> [27] 16:8	<b>Cold</b> [1] 8:23	<b>compile</b> [1] 134:9
211:17 213:14 219:11	18:11 18:24 23:14	22:11 22:13 46:14	<b>Colin</b> [2] 2:8	<b>complete</b> [5] 76:4
<b>CAT's</b> [1] 152:11	23:25 24:4 25:11	67:9 69:1 95:4	5:17	76:14 76:17 81:17
<b>caught</b> [1] 106:15	26:10 28:16 29:5	103:8 114:17 115:22	<b>collaborate</b> [1] 210:19	126:20
<b>caveat</b> [1] 223:11	31:20 33:21 37:19	122:15 128:15 134:15	<b>collaboration</b> [1] 89:20	<b>completed</b> [3] 70:5
<b>CB2</b> [1] 1:22	42:2 47:15 50:25	181:18 181:19 185:20	<b>collaborative</b> [5] 92:21 92:25 93:18	111:3 223:15
<b>CB4</b> [1] 3:9	51:15 51:21 52:25	197:3 201:13 227:1	<b>colleague</b> [2] 5:22	<b>completely</b> [3] 142:25
<b>cease</b> [2] 6:17	56:19 61:14 64:2	230:1 230:12 230:15	5:25	177:10 179:2
12:13	66:12 66:19 66:21	230:16 230:16 230:20	<b>Collection</b> [1] 151:7	<b>complimentary</b> [1] 202:6
<b>ceased</b> [1] 12:16	67:5 67:12 67:18	231:13 233:6	<b>Columbia</b> [2] 1:1	<b>components</b> [1] 84:17
<b>cells</b> [1] 174:24	67:19 68:14 72:24	<b>clearly</b> [8] 95:22	5:7	<b>comprises</b> [1] 32:25
<b>cent</b> [14] 74:18 74:18	75:8 76:19 76:22	95:23 115:2 142:11	<b>column</b> [1] 214:12	<b>conceivable</b> [1] 221:25
74:21 75:12 75:21	77:17 78:2 79:17	150:21 195:1 198:19	<b>comfortable</b> [1] 170:1	<b>conceive</b> [1] 139:18
86:25 97:24 98:9	81:3 84:15 84:16	218:25	<b>coming</b> [10] 5:18	<b>conceived</b> [4] 11:21
157:20 157:24 158:12	87:11 88:20 90:22	<b>cleavage</b> [3] 203:6	59:2 61:19 61:20	139:13 139:23 140:10
158:13 158:16	91:4 91:7 93:6	203:7 203:11	105:9 128:6 144:22	<b>conceiving</b> [1] 11:18
<b>centre</b> [2] 8:23	97:15 98:22 100:24	<b>clip</b> [1] 186:18	181:5 182:3 183:6	<b>concentrated</b> [1] 175:5
101:4	109:23 113:3 116:4	<b>close</b> [3] 13:14 43:5	<b>commence</b> [1] 198:25	<b>concept</b> [5] 28:15
<b>CEO</b> [4] 124:12 124:13	118:18 122:20 130:4	193:7	1:18 59:9 170:8	63:20 96:15 182:1
124:14 125:13	154:12 156:24 157:6	<b>closed</b> [2] 16:7	176:23 177:16	182:6
<b>certain</b> [8] 22:14	161:18 161:20 165:22	231:1	<b>comment</b> [15] 19:17	<b>concepts</b> [5] 176:21
42:25 44:19 53:6	179:11 179:12 186:22	<b>closely</b> [1] 191:3	57:20 65:14 103:20	176:25 177:14 181:3
83:5 106:11 155:21	189:2 189:12 190:5	<b>closest</b> [2] 30:10	115:14 115:17 115:25	182:2
159:2	194:8 194:17 195:13	185:13	122:17 123:10 128:16	<b>concern</b> [6] 62:16
<b>certainly</b> [11] 22:17	197:18 198:1 200:5	<b>Clough</b> [3] 3:3	129:19 146:20 147:23	
33:8 41:18 56:10	203:15 207:4 210:17	5:23 216:7		
70:3 78:19 83:11	213:23 214:17 220:4	<b>CM000348</b> [1] 18:22		
96:17 103:9 116:24	232:14 236:21 237:3	<b>CM000351</b> [2] 19:4		
214:16	237:21 239:1	186:24		
<b>CERTIFICATE</b> [1] 240:1	<b>Choi</b> [3] 2:22 5:22	<b>CM000356</b> [1] 31:4		
<b>certify</b> [3] 239:4	10:5	<b>CM000359</b> [1] 188:19		
240:4 240:9	<b>choice</b> [2] 219:19			
<b>CFR</b> [1] 216:23	231:10			
	<b>choose</b> [1] 139:6			
	<b>circulated</b> [1] 193:23			

## DR DAVID CHISWELL

## Condenselt™

## concerned - deposition

63:17 63:21 116:8 116:11 116:12 concerned [3] 62:7 77:6 163:17 concerning [17] 36:8 121:14 122:18 123:1 123:11 134:18 151:17 152:5 152:18 159:11 198:14 209:10 209:19 209:24 210:18 211:4 211:15 conclude [1] 221:10 concluded [3] 43:16 43:20 237:24 concludes [1] 236:23 concluding [1] 56:7 conclusion [1] 236:22 conclusions [1] 146:8 conditions [1] 230:6 conduct [2] 118:5 210:9 conducted [1] 123:16 conducting [3] 122:6 150:13 151:1 conference [25] 8:23 101:3 103:5 103:11 104:11 104:16 104:17 104:18 104:21 105:6 105:14 105:15 105:24 105:25 106:19 106:25 107:13 107:14 107:16 110:1 133:6 134:13 134:14 134:18 135:2 confidential [8] 1:11 72:14 154:8 154:11 154:16 154:19 154:24 237:18 confirm [4] 104:24 120:24 151:12 178:20 confirmation [2] 116:1 116:3 confirmed [2] 183:17 183:24 confirms [1] 151:10 confronted [1] 62:8 confused [1] 85:25 confuses [1] 86:4 confusing [1] 50:1 congratulating [1] 108:14 conjecture [2] 184:24 185:1 conjunction [2] 194:9 194:19 connection [7] 45:16 159:13 211:8 223:19 223:25 224:14 231:24 consensus [6] 146:5 146:7 146:9 146:11 146:16 146:21 consider [2] 142:21 217:2 considerably [1] 185:11 consideration [2] 144:5 211:21	considered [6] 143:5 143:9 143:24 144:2 206:22 222:14 considering [6] 45:12 45:17 176:7 176:8 183:12 203:13 construct [3] 153:21 183:1 183:16 constructed [1] 59:4 construction [8] 33:8 117:13 181:1 182:22 184:10 184:13 184:18 213:18 consultant [8] 6:24 7:5 7:9 7:20 16:14 100:14 100:15 100:16 consultants [1] 90:2 consultation [1] 7:23 consulted [1] 129:24 consulting [2] 22:20 232:7 contact [2] 132:11 202:21 contacts [1] 213:18 contain [1] 50:15 contained [4] 26:2 50:18 55:13 121:6 containing [1] 123:5 contains [1] 121:3 contemporaneous [1] 160:22 content [2] 55:8 212:14 contention [1] 128:24 contents [1] 73:24 context [26] 26:19 34:5 34:11 44:20 46:8 57:23 60:1 64:7 76:25 95:8 102:18 133:23 139:19 148:10 163:1 169:21 172:19 183:10 183:11 190:2 194:24 194:25 196:2 196:7 199:13 230:24 continue [7] 13:21 61:7 84:7 102:2 131:12 145:16 189:20 continued [8] 3:1 6:21 12:21 12:23 13:24 48:6 70:7 104:5 continuing [1] 6:6 contract [5] 7:1 7:5 7:10 7:18 8:3 contracts [1] 7:6 contractual [1] 7:2 contribute [2] 136:10 222:2 contributed [2] 223:4 233:15 contribution [10] 11:10 11:13 61:12 61:19 77:5 128:12	158:12 158:16 215:3 215:12 contributions [2] 214:18 222:1 conversation [16] 107:23 108:1 108:5 108:9 108:12 109:7 109:18 110:5 110:8 110:10 113:14 116:3 116:7 117:9 119:15 209:9 conversations [1] 122:25 copied [1] 71:20 copy [25] 8:9 8:16 8:21 9:15 9:16 10:10 24:5 37:1 70:12 81:7 81:12 81:19 91:11 91:23 98:24 100:23 121:5 121:6 121:9 147:6 158:10 207:18 213:24 216:4 216:7 corporation [3] 1:4 5:4 13:19 correct [70] 12:12 19:25 21:21 22:24 26:4 38:6 38:9 40:14 40:23 41:3 41:5 41:6 48:13 55:9 55:15 56:3 56:4 65:5 66:14 67:6 67:8 75:1 75:21 79:12 113:12 113:15 115:8 123:3 123:6 123:12 123:13 125:23 126:15 127:5 128:13 128:25 129:16 131:3 144:12 144:17 144:18 145:4 145:8 145:18 148:16 151:16 155:2 159:11 161:4 163:11 163:13 163:15 164:4 171:3 175:9 182:10 183:16 196:22 198:1 198:16 219:14 219:15 222:7 224:17 224:22 226:9 228:2 228:3 228:4 231:9 corrected [3] 127:11 127:13 226:7 correction [2] 127:15 238:2 corrections [2] 237:8 239:4 correctly [15] 12:6 58:5 65:21 65:22 65:23 70:14 70:23 77:7 103:7 159:4 202:16 220:7 224:4 224:19 228:6 correlate [1] 24:24 cost [1] 229:13 Council [6] 52:8 52:20 53:5 53:15 82:16 83:21 counsel [22] 5:14 9:14 10:3 26:25 33:7 45:4 73:17 80:22 83:4 91:22	117:20 119:5 123:15 123:20 127:8 159:16 186:3 217:15 217:19 218:10 240:10 240:13 couple [3] 69:14 90:12 223:16 course [13] 74:11 92:20 93:17 107:16 108:2 142:1 150:10 189:5 201:16 207:11 218:2 228:9 230:8 court [42] 1:1 5:7 6:1 29:15 32:6 32:8 41:18 47:23 47:25 48:4 60:5 60:10 60:14 60:24 61:1 63:16 67:2 67:4 72:18 72:20 93:13 93:15 106:22 116:19 118:5 126:11 137:10 140:9 177:14 187:13 194:15 194:17 201:8 211:13 212:19 218:9 218:16 218:23 234:24 235:1 240:1 240:3 cover [12] 7:22 8:10 24:9 37:12 49:7 69:10 70:12 221:14 222:11 222:24 226:1 234:4 covering [1] 102:25 covers [2] 83:4 83:6 created [2] 150:2 150:3 credited [2] 215:8 215:9 cross [4] 234:6 234:18 235:15 236:14 cross-examination [4] 4:5 223:20 232:15 232:18 cross-examine [1] 118:4 Crowne [2] 1:21 5:13 Croxley [2] 8:10 30:17 Cruz [1] 170:12 Culture [2] 151:5 151:7 cure [1] 197:5 custodian [1] 80:10 D [1] 4:1 D1.3 [2] 133:8 183:22 dam [1] 117:1 date [62] 5:9 6:19 9:2 9:3 9:5 9:12 12:5 13:1 13:4 13:18 20:20 22:16 24:7 37:3 37:14 37:16 68:15 68:16 68:17 68:20 70:22 70:25 76:13 81:11 82:18 82:21 85:4 85:11 89:14 98:25 100:5 111:5 113:21 124:11 124:11	130:20 132:6 132:7 132:17 166:19 178:6 178:7 182:16 208:24 208:25 209:1 216:19 217:14 218:10 219:3 219:4 219:14 225:20 226:5 226:15 231:11 232:25 233:2 233:2 233:4 233:6 238:25 dated [4] 70:13 82:16 84:24 162:14 dates [9] 9:1 13:2 22:23 71:11 86:1 132:16 208:20 216:24 225:25 David [13] 1:14 3:3 4:3 5:3 5:23 6:7 90:21 91:4 156:24 161:18 216:7 237:21 239:1 Davis [1] 99:16 day-to-day [1] 204:7 days [3] 7:19 7:21 57:21 DC [1] 2:10 de [1] 170:12 deal [1] 223:13 deals [1] 84:24 December [5] 12:6 88:25 89:11 166:25 178:4 decide [1] 215:8 decided [4] 142:7 171:5 215:2 229:11 decision [3] 206:4 206:7 229:22 dedicated [1] 229:15 deeply [1] 121:25 defence [1] 118:2 Defendant [1] 1:8 Defendants [1] 2:17 define [3] 23:22 49:3 82:11 defined [6] 46:25 115:20 173:24 185:10 224:6 227:25 definition [9] 64:18 93:25 94:2 95:5 95:25 96:10 97:2 211:20 227:7 degrades [1] 133:8 degree [1] 236:20 deliberately [1] 11:2 demonstration [1] 40:11 Dennis [1] 104:25 depending [3] 74:21 206:9 206:12 deponent [2] 4:2 239:2 deposited [2] 151:6 151:6 deposition [45] 1:12 5:3 5:12 7:17 8:7 18:22 30:7 36:11 36:19 36:21
---	--	---	---	---

56:7 56:20 73:1	determining [2] 126:21	180:16 181:24 182:12	36:25 37:13 37:14	documented [1] 157:8
73:6 73:15 90:21	193:2	184:7 190:24 193:17	37:15 37:19 37:22	documents [54] 9:2
91:3 91:9 94:13	developed [2] 89:18	204:21 204:25 209:19	37:23 38:3 38:15	26:11 30:6 30:9
97:21 99:2 109:13	146:5	215:16	38:17 38:21 38:24	30:13 30:14 30:15
118:19 118:23 130:6	device [1] 50:5	discussions [29]	50:19 51:22 53:1	30:17 30:19 36:7
159:10 159:14 159:24	devised [3] 40:20	9:14 11:15 30:16	53:3 53:8 53:10	67:10 67:25 69:3
161:17 165:11 179:10	41:8 46:10	33:7 34:23 35:1	53:12 54:2 54:10	73:5 73:14 74:1
207:7 207:7 216:6	devoted [2] 133:11	37:24 46:23 73:22	54:25 55:2 55:6	74:5 74:16 79:12
222:16 223:8 223:12	133:17	78:12 88:23 102:20	59:11 60:1 60:2	79:16 79:19 79:24
223:15 237:7 237:21	Diana [4] 73:2	102:21 110:3 117:19	62:3 66:9 66:12	80:25 81:10 83:25
237:24 239:2 239:3	75:14 76:15 81:18	122:23 138:7 138:10	67:1 67:5 67:22	84:1 86:5 87:14
240:5 240:12	Diane [2] 124:8	141:1 153:11 157:11	68:6 68:12 68:23	87:21 88:5 97:7
derivation [1] 236:20	128:4	159:15 198:13 209:6	68:24 69:3 69:8	97:10 97:20 98:14
derived [1] 189:24	die [1] 237:24	213:9 219:10 229:25	69:10 70:4 70:7	99:1 105:23 124:4
describe [17] 7:4	difference [4] 40:9	230:18 230:20	70:24 71:1 71:11	128:20 128:23 129:3
29:3 29:16 31:13	76:3 96:9 207:16	display [55] 21:3	72:25 73:2 73:12	145:13 147:9 154:18
32:9 32:11 32:17	different [11] 74:23	27:20 35:7 35:9	74:1 74:4 74:8	155:8 157:25 158:7
41:7 43:23 70:14	107:7 133:6 142:25	35:13 36:3 42:22	74:9 74:12 75:10	174:11 198:13 198:18
70:24 134:10 171:12	143:9 161:9 166:15	43:9 43:11 44:6	75:11 75:18 76:24	213:19 213:20 216:6
171:15 173:5 173:13	169:12 182:20 186:2	104:17 104:19 105:5	79:14 79:21 80:3	223:8 223:10
183:21	236:20	105:7 106:18 106:24	80:11 80:16 82:3	doesn't [9] 49:7
described [13] 26:6	differs [1] 221:20	107:9 108:15 120:7	82:8 82:10 82:19	50:14 55:12 58:18
26:16 26:23 28:24	difficult [1] 82:4	133:11 133:17 134:12	82:25 83:22 84:11	65:18 129:5 180:5
48:15 49:13 51:22	direct [12] 92:20	134:19 134:22 135:4	86:4 87:23 91:8	182:19 202:23
110:5 113:1 172:8	92:25 93:17 93:22	135:9 135:11 135:14	91:13 93:25 94:3	domain [6] 44:17
172:25 181:15 181:25	125:24 126:16 223:19	135:18 137:4 137:12	94:11 96:3 97:16	137:17 181:2 183:5
describes [1] 227:21	225:3 225:3 225:20	138:19 138:25 139:15	97:18 97:23 98:5	183:10 183:12
describing [1] 173:20	226:6 236:13	140:11 142:10 143:10	98:11 98:16 98:22	Donald [1] 216:18
description [10] 110:4	directed [1] 147:17	143:19 146:4 163:3	99:4 99:6 99:12	done [46] 17:15
171:4 171:8 171:21	direction [1] 142:25	164:2 169:7 170:9	100:19 102:9 103:19	27:19 29:21 35:25
171:25 172:15 173:8	directly [5] 119:15	172:17 194:12 194:21	104:6 111:9 112:17	43:24 44:15 45:21
184:6 188:4 200:17	122:5 122:10 135:10	195:14 196:21 197:10	113:2 118:23 119:4	45:22 46:4 46:6
design [14] 46:15	219:7	198:25 210:20 211:5	120:23 121:2 121:8	48:16 49:9 49:9
98:17 175:23 176:1	director [1] 230:19	211:16 212:3 212:23	128:14 130:5 130:10	49:12 49:21 50:15
176:15 176:22 177:15	disagree [4] 117:12	displayed [4] 28:6	130:15 130:19 130:22	77:8 78:3 78:5
180:25 181:9 182:1	160:2 212:13 212:17	32:14 137:1 153:21	131:3 131:6 132:8	107:12 107:15 107:19
182:5 182:6 182:14	disagreed [4] 159:2	displaying [3] 28:13	145:5 147:4 147:4	108:14 118:2 136:14
184:9	159:10 160:13 160:17	64:20 134:24	151:24 153:6 154:21	136:15 139:5 142:16
designate [1] 237:17	disagreement [7] 117:15 156:20 156:22	distinct [2] 74:24	154:24 155:11 155:19	143:15 154:1 154:20
designations [1] 186:1	157:6 157:7 160:23	75:2	155:22 155:24 157:16	173:6 173:14 173:21
designed [4] 62:1	160:25	distinction [2] 51:5	157:18 158:3 158:14	176:20 183:24 183:25
108:21 144:10 176:6	disbanded [2] 228:21	213:5	159:3 159:22 160:22	184:2 190:6 200:19
designing [2] 11:19	229:13	distinguished [1] 57:22	161:3 161:6 161:7	211:5 211:15 214:5
desirable [1] 76:6	discarded [1] 11:2	distributed [1] 113:25	161:21 162:10 164:12	215:2 220:14 222:6
desired [1] 239:4	disclose [1] 107:21	distribution [1] 114:2	164:18 164:24 165:1	doubt [8] 28:12
desk [1] 10:22	disclosing [1] 119:14	District [4] 1:1	165:7 165:12 165:23	46:2 82:12 143:17
despite [1] 197:7	disclosure [3] 28:18	1:1 5:6 5:7	166:4 166:9 166:15	185:9 188:8 197:23
detail [5] 85:17	66:7 212:12	divided [1] 167:23	167:3 167:10 167:21	215:16
94:18 174:15 187:6	discouraged [1] 197:9	diving [1] 116:25	171:19 173:7 176:4	down [23] 16:7
223:18	discovered [1] 99:12	divisions [1] 229:18	177:19 178:10 178:12	26:25 30:24 48:8
detailed [2] 83:2	discovery [2] 92:19	DJC [2] 72:2 179:21	178:16 179:2 179:6	62:2 69:6 75:11
173:8	93:16	DNA [1] 175:4	179:12 179:16 179:23	85:25 87:2 89:23
details [5] 77:5	discuss [3] 15:21	document [264] 7:22	179:24 186:4 186:8	104:4 109:3 115:12
180:19 180:24 187:10	73:18 105:18	8:6 8:15 8:16	186:14 186:17 186:21	148:13 161:1 161:5
187:14	discussed [13] 64:10	8:17 8:19 10:20	186:23 187:4 188:9	168:15 190:17 190:23
determination [5] 34:18 43:25 48:16	65:15 73:21 75:13	18:25 19:1 19:7	188:18 189:1 189:5	193:4 219:9 220:9
78:8 215:21	77:4 94:23 115:21	19:9 19:20 20:7	189:8 189:18 190:4	231:2
determine [10] 37:10	138:23 153:12 154:14	20:13 20:19 21:12	190:25 191:3 191:4	Downing [1] 1:21
74:17 77:16 77:20	160:15 174:4 235:6	22:15 22:21 23:1	191:5 191:6 191:9	Dr [131] 1:14 4:3
77:24 184:22 202:24	discussing [4] 88:21	23:4 23:5 23:16	191:19 191:24 192:2	5:3 5:19 6:7
214:23 220:15 220:18	154:15 181:4 209:4	24:4 24:18 24:22	192:17 193:3 193:14	6:13 8:5 10:16
determined [9] 144:21	discussion [20] 16:2	25:11 25:16 25:22	193:20 193:22 193:25	18:11 18:24 20:17
201:2 201:11 201:14	16:16 19:5 37:13	26:1 26:8 26:20	194:4 194:6 194:10	22:14 23:14 24:4
203:6 203:8 203:11	37:18 59:12 75:3	29:8 29:10 29:19	194:20 194:25 195:16	25:11 25:19 26:5
220:9 231:5	141:24 143:2 175:20	29:22 29:25 30:1	200:6 200:20 200:22	26:9 28:16 29:5
		30:24 31:1 31:11	205:11 205:15 207:5	31:20 33:21 36:11
		31:18 31:20 31:25	207:9 207:17 207:21	36:19 37:19 42:2
		33:4 33:9 33:23	207:24 208:1 208:14	47:15 48:11 49:11
		34:7 36:14 36:20	214:1 214:8 214:10	49:20 50:25 51:15
			214:14 216:5 216:10	51:21 52:25 56:19
			222:22 225:10 225:12	57:7 61:14 64:2
			233:3 236:16	69:18 69:20 72:24
			documentation [1] 96:14	



**draft - explicit**

75:878:284:1588:2091:493:697:15100:24116:4122:20138:16145:11150:10154:1155:10157:6160:5161:20170:8186:22190:5194:8197:18200:5207:4211:3211:16220:4228:13237:3draft19:1523:869:23166:25169:23173:23179:4187:25193:6193:16195:8drafted19:2423:10167:2167:11172:3drafter187:4194:25drafts155:18draw146:8drawers10:22drawing106:9drew106:12duly6:8dumb125:9Dunstan73:275:14during14:115:1346:1154:1188:192:1976:781:387:1190:2192:2496:10100:10109:23120:6138:7145:17152:18155:2157:6161:18165:22176:2189:12192:4195:13198:24203:15210:17211:5213:23220:8232:14237:2119:1422:1538:3166:23169:13172:20178:17185:12188:14193:11193:22194:119:1720:1033:6167:7168:24193:222:2519:7186:23190:12224:169:21192:17177:2510:22106:8133:15106:126:8125:973:276:1611:2314:940:2246:1357:888:1193:1714:1842:652:2258:1589:10108:2108:4108:12124:5128:6152:13204:11215:17225:20231:12209:24210:1210:3163:72:12:13:14:111:1579:21115:4115:23116:9116:20117:22141:11166:25169:23172:19176:9180:7185:12204:15211:15229:8233:16219:110:132:12179:8123:4191:19191:23209:5123:15134:8134:21135:3194:10194:20229:25231:485:4152:2274:17135:9137:3137:12146:16220:182:32:1199:2199:2199:2215:1826:1039:2544:871:2073:21108:24114:17132:19149:5149:25150:25205:14208:12209:13235:6176:83:721:2021:22122:8192:23192:24207:20212:2212:22215:1220:968:1368:13138:23200:96:156:1712:1013:2213:2515:1417:1335:17138:4240:10240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:2315:18138:25117:23115:4115:23116:10116:20235:25197:17197:12197:15232:112:1615:1434:1343:343:543:1790:1090:2096:19104:7136:19143:22166:24170:19171:6174:16176:5183:23231:8237:14237:20163:16195:1016:10230:141:225:131:75:6210:4117:1988:16226:19149:16150:531:2059:22125:2125:562:937:1362:1863:1863:2375:8130:19164:24165:23166:4214:16163:4131:13148:15169:1775:20237:12238:176:617:13138:4240:1312:748:1148:17152:11152:11230:10230:13114:1227:23227:23

DR DAVID CHISWELL			Condenselt™			explicitly - good					
153:9	154:5	168:21	fear [1]	62:13	financially [1]	240:14	formal [6]	6:19	G [2]	2:8	101:24
168:23	175:25	192:13	February [1]	9:13	fine [6]	34:3	77:2	77:12	Garland [2]		125:1
204:24			federal [2]	62:25	63:8	118:10	87:2	88:24	125:10		
explicitly [21]	7:15		118:5		230:21		formally [2]	12:15	genc [16]	34:16	34:19
10:25	17:19	22:22	feelings [1]	134:17	finish [4]	16:11	13:24		35:2	43:18	96:19
34:20	39:14	41:10	feels [1]	180:6	35:16	190:15	format [2]	105:16	133:11	133:17	136:8
41:19	43:10	52:3	fees [1]	22:5	finished [1]	36:12	105:17		136:11	136:11	136:16
55:24	73:16	89:5	felt [7]	62:18	firm [3]	21:19	formation [5]	11:23	143:18	153:21	170:18
165:2	167:12	185:23	75:20	140:15	207:20	99:18	183:15	183:16	202:8	203:4	
188:10	188:16	189:13	206:16	231:3	first [76]	15:20	211:17		general [31]		30:22
230:1	234:11		few [10]	13:24	18:24	19:15	formed [1]	12:4	40:10	40:12	40:15
explore [1]		134:25	103:21	113:11	27:9	33:25	forming [1]	15:21	42:3	53:3	55:17
exploring [1]	102:13		198:15	228:16	42:1	51:11	formulated [2]	122:8	55:18	83:19	139:3
express [1]	198:9		232:20	235:20	62:11	62:22	140:20		141:19	156:4	169:16
expressed [2]	156:19		field [10]	17:4	73:7	75:10	forth [4]	31:18	173:22	175:3	175:16
160:23			39:5	39:12	84:10	86:1	98:3	223:23	181:16	181:17	190:12
expressing [6]	39:7		110:17	134:22	86:7	88:18	forward [4]	100:22	195:4	196:19	197:20
39:21	42:3	43:14	135:13	195:4	92:1	92:16	142:22	199:6	198:18	210:4	210:16
196:10	197:1		fields [1]	43:13	100:19	100:25	found [11]	19:19	213:1	213:2	231:25
extensive [2]	46:23		fifty [1]	229:11	104:10	106:4	79:3	79:4	235:23	235:24	236:4
223:18			figure [21]	184:14	120:4	120:11	110:13	111:9	generality [1]		222:3
extensively [3]	11:14		184:19	184:22	139:24	141:4	146:12	179:13	generally [9]		8:4
23:8	107:8		185:5	185:8	145:2	153:2	186:21		134:12	135:19	139:5
extent [5]	29:9		185:13	185:14	153:21	155:11	foundation [26]	45:3	175:11	175:13	200:9
75:13	117:18	188:8	185:21	185:21	156:17	166:9	47:13	49:16	210:12	215:23	
206:21			200:14	200:14	172:7	173:1	50:21	51:25	generic [1]		142:13
external [1]	15:19		200:14	200:18	178:8	183:8	61:23	66:17	genes [1]		141:14
extra [1]	101:24		203:3	203:7	188:14	189:3	93:3	109:20	genesis [1]		16:17
extrapolate [1]	146:10		figures [2]	200:9	193:14	193:22	138:21	140:24	Genex [4]		108:25
F4G [1]	217:3		200:13		207:8	213:12	166:6	169:10	115:2	115:2	115:9
face [5]	24:5	85:14	filamentous [5]	35:6	223:3	223:24	180:1	182:24	geographically [1]		15:7
91:11	224:20	235:5	35:8	35:13	224:7	225:4	196:25	198:4	George [52]		100:25
facsimile [1]	162:14		36:6		225:19	226:4	203:19		101:23	101:25	102:6
fact [30]	54:8	57:6	file [13]	24:5	233:11	235:4	four [1]	199:18			

Condenscsl™			explicitly - good		
cially [1]	240:14	formal [6]	6:19	G [2]	2:8 101:24
e [6]	34:3 47:21	77:2 77:12	81:8	Garland [2]	125:1
8	118:10 228:10	87:2 88:24		125:10	
0:21		formally [2]	12:15	gene [16]	34:16 34:19
sh [4]	16:11	13:24		35:2 43:18	96:19
16	190:15 206:10	format [2]	105:16	133:11 133:17	136:8
shed [1]	36:12	105:17		136:11 136:11	136:16
n [3]	21:19 99:18	formation [5]	11:23	143:18 153:21	170:18
7:20		183:15 183:16	211:6	202:8 203:4	
t [76]	15:20 18:10	211:17		general [31]	30:22
24	19:15 21:12	formed [1]	12:4	40:10 40:12	40:15
9	33:25 39:3	forming [1]	15:21	42:3 53:3	55:17
1	51:11 51:18	formulated [2]	122:8	55:18 83:19	139:3
11	62:22 70:2	140:20		141:19 156:4	169:16
7	75:10 84:6	forth [4]	31:18 97:25	173:22 175:3	175:16
10	86:1 86:6	98:3 223:23		181:16 181:17	190:12
7	88:18 91:21	forward [4]	100:22	195:4 196:19	197:20
1	92:16 95:4	142:22 199:6	214:2	198:18 210:4	210:16
0:19	100:25 101:14	found [11]	19:19	213:1 213:2	231:25
4:10	106:4 119:8	79:3 79:4	89:16	235:23 235:24	236:4
0:4	120:11 133:3	110:13 111:9	134:4	generality [1]	222:3
9:24	141:4 143:11	146:12 179:13	186:10	generally [9]	8:4
5:2	153:2 153:5	186:21		134:12 135:19	139:5
3:21	155:11 156:14	foundation [26]	45:3	175:11 175:13	200:9
5:17	166:9 166:16	47:13 49:16	49:24	210:12 215:23	
2:7	173:1 175:22	50:21 51:25	52:13	generic [1]	142:13
8:8	183:8 185:12	61:23 66:17	88:22	genes [1]	141:14
8:14	189:3 190:17	93:3 109:20	121:17	genesis [1]	16:17
3:14	193:22 194:1	138:21 140:24	157:3	Genex [4]	108:25
7:8	213:12 223:2	166:6 169:10	175:15	115:2 115:2	115:9
3:3	223:24 224:1	180:1 182:24	195:18	geographically [1]	15:7
4:7	225:4 225:5	196:25 198:4	201:5	George [52]	100:25
5:19	226:4 227:12	203:19		101:23 101:25	102:6
8:6	230:25 233:2	four [1]	199:18	102:7 102:10	102:16
3:11	235:4	fragment [6]	27:21	102:22 103:2	103:11
e [4]	165:9 195:24	41:15 41:24	108:16	103:16 103:22	106:10
9:20	219:17	138:25 139:7		106:17 106:23	107:8
w [1]	126:20	frame [9]	87:25	108:6 110:5	110:10
us [2]	20:17	88:1 88:7	88:11	112:13 114:25	115:23
9:7		88:12 88:19	209:16	115:25 116:3	119:9
used [2]	143:18	209:20 213:8		131:13 133:2	133:21
6:21		frankly [7]	22:22	134:6 134:11	134:18
low [2]	60:22	86:3 106:14	130:25	134:21 135:2	135:8
3:5		149:20 172:3	213:6	136:1 137:17	146:14
lowed [2]	102:16	free [2]	145:15 200:19	147:23 148:8	149:5
5:8		freely [1]	106:1	149:7 150:12	150:13
lowing [6]	39:19	friends [1]	17:12	150:17 150:18	151:8
2:4 92:11	160:14	front [32]	24:3	162:14 162:18	162:21
2:8 173:21		36:10 66:7	67:10	162:24 195:3	208:5
lows [3]	6:10	70:9 72:25	82:7	German [2]	1:4
5:14 172:15		86:14 88:9	91:7	5:4	
lowup [2]	232:20	97:11 97:15	98:21	Germany [1]	2:16
4:8		110:2 121:1	130:4	gIII [1]	115:2
bl [1]	205:20	131:14 148:9	158:23	given [10]	61:4
egoing [3]	239:2	161:21 164:5	164:21	112:13 119:19	146:2
9:3 240:5		178:10 179:7	180:8	149:7 153:7	159:21
get [1]	8:3	195:22 207:4	213:22	16	

explicitly - good		
[1]	2:8	101:24
land [2]		125:1
5:10		
ic [16]	34:16	34:19
2	43:18	96:19
3:11	133:17	136:8
6:11	136:11	136:16
3:18	153:21	170:18
2:8	203:4	
neral [31]		30:22
10	40:12	40:15
3	53:3	55:17
18	83:19	139:3
1:19	156:4	169:16
3:22	175:3	175:16
1:16	181:17	190:12
5:4	196:19	197:20
8:18	210:4	210:16
3:1	213:2	231:25
5:23	235:24	236:4
nerality [1]		222:3
nerally [9]		8:4
4:12	135:19	139:5
5:11	175:13	200:9
0:12	215:23	
neric [1]		142:13
nes [1]		141:14
nesis [1]		16:17
nex [4]		108:25
5:2	115:2	115:9
ographically [1]		
5:7		
orge [52]		100:25
01:23	101:25	102:6
02:7	102:10	102:16
02:22	103:2	103:11
03:16	103:22	106:10
06:17	106:23	107:8
08:6	110:5	110:10
12:13	114:25	115:23
15:25	116:3	119:9
31:13	133:2	133:21
34:6	134:11	134:18
34:21	135:2	135:8
36:1	137:17	146:14
47:23	148:8	149:5
49:7	150:12	150:13
50:17	150:18	151:8
62:14	162:18	162:21
62:24	195:3	208:5
erman [2]		1:4
4		
ermany [1]		2:16
II [1]	115:2	
ven [10]		61:4
12:13	119:19	146:2
49:7	153:7	159:21
60:3	209:22	236:19
ving [1]		104:13
al [1]	146:7	
ocs [5]	65:7	85:1
64:25	177:21	236:16
one [11]		79:18
1:1	81:8	91:15
14:6	169:24	178:25
88:3	198:12	221:4
37:2		
ood [19]		6:13
5:14	36:17	40:10



40:12 40:15 41:11	74:10 74:15	hope [3] 178:19 216:4	90:2 90:2 196:9	instruct [1] 160:7
41:20 60:21 103:3	happy [4] 18:6	232:2	198:23	instructed [1] 139:25
112:10 141:19 163:22	31:1 91:18 188:12	horizons [1] 229:17	inclusive [2] 8:11	instructing [1] 140:1
196:19 197:4 197:4	Harbor [1] 8:23	Hotel [2] 1:21	130:7	instruction [4] 159:20
198:6 218:20 218:21	hard [3] 10:9 10:10	5:13	incorporated [3]	160:3 160:19 218:6
grant [32] 119:24	54:3	hours [1] 49:7	17:22 94:2 193:15	instructions [1] 209:22
120:6 120:9 120:10	Harries [4] 1:25	human [1] 141:12	incorporation [1]	intellectual [7] 65:9
120:20 120:22 121:3	6:2 240:2 240:22	humane [1] 231:6	12:5	65:24 66:3 94:20
121:14 121:23 122:19	hate [1] 223:16	i-m-p-r-o-p-e-r [1]	incorrect [3] 118:7	95:10 95:12 150:19
123:1 123:12 128:6	hazy [2] 119:18 170:12	118:5	164:10 164:22	intellectually [1]
128:7 128:11 128:14	he'd [5] 20:23 107:15	Ian [3] 78:13 78:20	indeed [7] 11:4	215:3
128:17 128:19 129:4	108:15 116:6 136:25	215:1	36:24 143:11 159:14	intend [1] 227:18
129:9 129:18 204:21	head [2] 83:20 234:9	idea [15] 46:20 46:21	217:23 223:23 224:23	intended [4] 38:6
205:2 205:14 205:14	headed [2] 68:13	54:25 63:25 68:10	indefinite [7] 62:20	106:2 169:13 171:11
205:22 206:5 208:13	145:19	76:18 80:6 80:23	98:2 135:25 137:6	intention [2] 230:12
208:17 208:19 209:15	heading [1] 184:18	95:24 116:6 148:4	198:5 214:21 221:22	231:14
209:20	Heads [1] 92:11	165:4 172:13 182:8	independent [2]	interacting [1] 100:16
granted [2] 30:11	Health [1] 149:14	208:7	61:12 151:21	interchange [2] 148:3
102:24	hear [6] 103:13 106:20	ideas [2] 102:1 145:1	independently [4]	148:6
great [1] 232:2	116:17 117:14 126:7	identification [10]	39:6 59:15 60:16	interested [3] 87:10
green [2] 8:10	211:11	8:13 24:1 69:25	196:9	193:9 240:15
79:21	heard [5] 101:8	91:1 97:13 98:6	INDEX [1] 4:9	interesting [1] 110:13
Greg [39] 11:17	140:4 197:23 208:11	98:19 130:2 161:15	indicated [6] 95:7	International [3]
16:14 20:14 23:9	228:21	207:2	103:4 132:23 158:25	229:9 230:10 231:1
23:20 23:20 27:18	hearing [2] 127:1	identifications [1]	164:2 203:7	interpretation [4]
34:25 39:6 64:10	129:20	99:15	Indicating [1] 71:12	40:17 146:13 163:23
65:15 71:20 78:13	hearsay [2] 122:1	identified [10] 43:21	individual [5] 71:8	231:2
81:9 88:15 88:21	122:4	104:10 140:14 142:9	108:25 215:10 215:10	interpreting [1] 61:25
90:3 94:9 94:23	heavily [1] 187:4	142:18 144:4 146:24	221:2	Introduction [2]
95:15 101:24 114:7	heavy [1] 183:11	186:1 186:9 224:20	individually [1]	168:6 168:8
141:15 141:25 152:24	held [2] 8:22 86:17	identify [12] 5:14	108:6	introductory [1]
153:12 153:23 154:17	HELLER [3] 2:3	8:8 25:1 40:7	individuals [1] 221:8	172:7
155:3 155:4 155:18	2:9 2:11	82:14 97:11 136:14	infectious [2] 208:7	invented [9] 54:20
160:14 161:6 167:7	help [5] 13:13 42:8	139:8 142:24 161:23	208:12	59:15 59:25 60:16
188:6 196:9 210:19	45:20 130:13 184:22	187:24 222:23	inference [1] 177:25	234:3 234:16 235:3
214:25 220:12	helpful [5] 9:22	III [12] 34:16 34:19	inform [4] 228:17	236:2 236:10
Greg's [1] 154:15	50:6 103:24 115:3	35:2 43:18 96:19	229:20 229:23 231:13	invention [70] 23:22
GREGORY [1] 239:10	132:6	143:18 170:18 202:8	information [9] 38:7	27:5 27:12 27:15
Griffiths [6] 23:20	Helpfully [1] 104:2	203:4	107:22 132:24 135:15	28:5 29:4 29:16
27:18 153:17 153:19	Henry [1] 99:16	Illinois [2] 2:20	136:17 137:16 198:24	31:13 31:16 31:16
192:16 233:15	hereby [1] 240:4	3:5	202:24 210:5	31:17 32:9 32:11
grounds [1] 62:24	hereto [1] 240:14	immediately [1]	informed [1] 229:5	32:17 32:23 62:3
group [27] 13:14	herself [2] 23:11	130:11	Ingleheim [1] 132:12	62:4 62:10 62:14
13:15 15:17 16:6	188:7	immunoglobulin [2]	initial [1] 100:2	62:15 62:17 63:18
16:8 16:19 16:22	hide [1] 117:8	181:2 183:5	insert [4] 34:19	63:20 63:25 64:3
17:2 17:4 17:18	highly [3] 1:11	imperfect [1] 233:14	41:14 41:23 42:25	64:5 64:12 64:16
34:18 74:4 105:17	154:8 237:18	implication [1] 76:15	44:14	64:18 64:24 65:1
108:8 170:11 190:14	himself [1] 144:19	implied [1] 44:9	inserted [2] 34:16	65:4 65:17 65:20
195:3 222:1 222:9	historical [2] 193:8	implies [2] 81:18	183:22	66:2 86:16 92:19
223:3 223:5 228:21	213:18	144:19	insertion [26] 35:2	92:23 93:16 93:20
229:5 229:11 229:12	history [20] 38:13	imply [1] 223:3	42:5 42:10 42:21	94:1 94:25 95:1
229:15 230:15	39:3 54:5 54:7	implying [1] 51:1	42:24 43:8 43:17	95:5 95:16 95:18
grounds [1] 174:24	56:21 60:2 61:11	important [2] 63:3	46:3 136:12 136:18	95:20 95:22 95:24
growing [4] 112:10	61:15 61:17 64:11	110:15	170:18 171:1 171:4	95:25 96:10 96:11
174:15 174:24 204:16	65:16 94:24 96:1	improper [4] 117:16	171:6 175:23 176:22	96:16 96:18 97:3
grown [1] 89:2	160:15 196:4 212:3	118:4 166:5 169:10	177:16 180:25 181:1	160:16 200:13 214:18
guess [1] 111:22	212:22 213:12 213:20	Incidentally [1]	181:10 182:1 182:6	215:13 216:24 217:1
guilty [1] 231:3	228:20	76:2	182:7 182:14 183:5	221:2 221:15 223:23
guise [1] 152:23	HIV [2] 147:21 147:22	include [2] 39:13	184:9	224:5 224:6 227:22
guy [1] 102:22	hold [3] 83:23 98:9	54:4	insertions [1] 136:16	235:25 236:4 236:10
half [4] 86:17 86:17	225:6	included [4] 13:15	insight [2] 42:20	inventions [3] 92:15
142:1 231:12	holders [1] 89:25	20:14 23:19 215:1	197:16	115:20 215:14
handed [4] 73:4	honest [5] 54:24	includes [1] 59:7	instance [1] 44:11	inventive [4] 36:9
112:20 164:22 178:12	66:1 123:21 147:2	including [8] 39:6	Institute [2] 149:14	56:2 110:19 110:22
handle [1] 199:11	177:20	89:25 90:1 90:1	240:3	inventor [7] 23:23
hands [1] 225:10				27:23 68:9 68:11
hang [2] 83:21 83:23				209:25 216:24 220:11
happening [3] 61:16				inventors [40] 19:16

23:13	23:16	25:17	Jackson [17]	4:20	Jools [2]	3:11	5:11	151:17	151:18	151:19	leaving [3]	7:3
25:20	26:5	26:7	17:8	17:16	20:16	journal [2]	133:17	151:21	152:3	152:18	7:18	223:9
26:15	26:19	26:22	20:17	20:21	82:8	133:18		152:19	153:14	154:15	led [9]	20:13
27:1	66:13	67:5	86:8	87:7	123:22	JR [2]	1:6	172:25	174:2	176:17	88:24	98:15
67:19	68:13	76:19	124:8	128:3	192:11	judge [1]		176:23	177:17	202:20	153:5	155:18
76:22	77:10	77:24	224:25	225:13	227:12	July [40]	13:16	labelled [1]	19:5		213:14	
156:8	156:25	215:4	233:16			22:16	24:7	laboratories [2]	52:19	left [1]	158:2	
215:7	215:10	221:13	Jamic [5]	148:22		28:4	28:16	172:23		legal [17]	7:11	
222:1	222:9	222:11	149:2	149:8	149:25	37:14	68:21	laboratory [19]	14:4	12:5	27:14	64:3
222:23	223:4	224:19	149:25			69:10	71:17	14:7	27:13	64:18	94:2	95:5
224:21	233:3	233:9	Janc [2]	2:22	5:22	81:7	82:24	27:17	28:17	96:15	99:18	139:19
233:11	234:4	234:16	January [27]	12:9		85:22	96:8	28:25	46:6	177:1	214:24	219:8
235:2	236:2	236:11	14:10	54:2	57:4	111:9	127:4	59:2	144:16	220:15	221:8	221:16
inventorship [11]			58:11	58:15	58:18	153:6	155:12	149:6	151:18	221:20		
159:11	214:23	215:22	58:22	59:7	87:12	162:14	177:21	153:24	169:6	legalistic [1]	157:19	
220:10	220:11	220:18	87:19	88:17	98:25	191:9	226:21	labs [2]	53:15	legally [1]	64:5	
220:19	220:21	223:25	100:6	130:20	140:21	227:6	228:13	lack [14]	45:3	legs [1]	100:23	
224:8	232:24		152:14	176:3	176:5	233:2	233:4	61:22	93:2	Lena-Christ-Str.48		
investigate [2]	41:14		176:10	182:4	182:16	234:12	234:13	138:20	140:23	[1]	2:15	
41:23			184:2	201:3	201:12	June [13]		179:25	182:23	lengthy [3]	30:25	
investigation [2]			201:15	228:11		82:24	85:23	195:19	196:25	189:15	222:18	
77:15	77:18		Jill [3]	145:20	146:2	208:19	208:24	lacking [5]	49:16	less [2]	204:7	204:7
invitation [1]	105:20		146:20			209:16	209:21	49:24	50:21	letter [13]	70:13	
invited [1]	105:18		job [1]	218:23		212:20	216:19	203:19		70:17	91:12	91:19
involve [1]	21:3		jobs [2]	230:3	232:2	K [1]	2:9	lacks [2]	109:19	91:23	91:24	91:25
involved [36]	11:5		John [86]	1:14		Katten [3]	2:18	Ladner [1]	109:1	92:1	92:2	92:3
11:14	11:15	11:16	2:6	4:3	5:17	3:3	5:24	laid [2]	29:4	92:6	92:8	98:24
15:16	16:1	20:6	6:7	11:17	13:4	keep [4]	35:5	Lambda [2]	39:13	libraries [4]	141:14	
20:21	21:1	23:9	14:8	17:3	17:25	36:14	80:7	39:23		141:23	150:1	150:2
23:19	29:7	30:19	20:14	23:9	23:21	kept [9]	10:23	language [1]	20:4	library [3]	28:6	
33:8	78:15	121:25	27:19	33:23	34:24	11:2	80:8	largely [1]	135:3	146:18	149:15	
122:5	122:9	126:24	35:3	35:12	35:18	151:16	151:19	larger [1]	44:10	licence [1]	85:15	
142:20	187:4	188:12	40:20	45:10	45:14	151:25		last [27]	9:9	licensed [1]	85:16	
191:23	192:1	192:4	45:18	45:23	46:9	Kevin [2]	192:11	22:9	29:23	light [4]	34:1	47:16
192:15	204:7	204:8	46:24	51:21	52:17	233:18		60:10	70:23	77:5	86:4	
204:13	204:15	204:19	53:20	54:11	55:4	key [12]	40:21	73:19	86:1	likely [13]	47:7	
206:14	209:19	212:4	56:23	61:5	63:3	46:13	46:19	108:9	131:16	48:1	48:3	48:8
212:23	219:8		64:12	65:5	65:20	47:1	49:13	178:13	184:13	80:11	163:22	183:13
involvement [14]			66:13	67:6	85:6	58:2	59:13	187:8	191:2	187:24	191:16	192:14
19:11	19:12	19:13	87:17	94:25	95:16	153:16		191:16	196:2	204:12	204:14	224:2
20:16	22:25	23:2	95:21	114:16	117:6	kill [1]	168:12	220:5	233:23	Limited [3]	1:7	
23:7	28:25	121:24	117:24	140:3	141:25	kind [7]	15:12	234:24		5:5	228:3	
125:24	126:16	126:20	144:15	145:6	150:23	80:18	105:8	late [1]	178:1	line [11]	31:6	32:21
129:8	129:13		151:14	151:19	152:2	190:3	219:13	latter [1]	231:12	34:13	181:18	188:19
involving [3]	7:23		152:23	153:1	153:4	kits [1]	85:21	law [3]	21:19	188:21	188:22	189:22
11:5	204:21		153:7	153:11	153:12	knew [3]	119:9	206:20		189:22	209:7	216:20
irrelevant [2]	63:6		154:7	154:17	156:7	123:15	201:14	laws [2]	206:13	lines [2]	99:14	106:11
102:12			156:24	160:16	164:16	knowledge [23]	21:23	lawyer [4]	21:4	link [1]	178:8	
isolate [2]	141:16		166:3	167:8	167:14	29:24	52:10	116:16	116:22	linking [1]	185:3	
141:21			172:12	181:3	182:2	69:16	76:20	lawyers [3]	11:6	list [9]	25:17	30:13
issue [19]	42:9		183:9	187:21	188:6	112:24	120:11	206:23	221:9	39:11	40:2	89:8
62:23	102:9	102:12	193:7	201:1	201:11	121:10	128:16	lay [3]	94:4	103:25	105:20	114:2
117:8	117:23	133:10	209:4	212:16	216:13	129:12	136:10	96:18		221:13		
133:16	133:18	134:9	217:22	218:3	233:14	151:8	153:1	layman [1]	65:3	listed [17]	23:15	
171:3	175:5	205:9	234:10			170:2	193:1	layman's [2]	66:4	25:20	26:7	26:15
205:10	214:24	219:13	John's [4]	49:10		221:18		221:25		27:2	27:6	66:13
221:8	223:18	223:25	John's [2]	192:11		knowledgeable [3]	210:18	leading [3]	129:19	67:6	68:11	175:12
issued [3]	98:10		233:19			known [1]	175:13	224:11	231:17	201:1	201:10	215:5
203:16	203:20		joined [14]	17:5		knows [1]	218:4	learned [1]	229:5	221:13	222:11	234:4
issues [5]	45:13		49:11	49:20	51:11	lab [41]	14:12	least [16]	8:15	236:11		
45:17	102:11	142:2	51:20	52:5	52:9	14:24	23:20	47:3	61:13	listen [4]	17:25	
144:5			52:14	176:18	176:20	49:12	50:12	137:3	137:11	18:5	18:6	212:15
iterations [1]	169:25		184:11	213:14	233:16	50:14	52:9	175:8	185:14	listener [1]	228:17	
itself [9]	9:17	30:11	233:19			53:5	54:20	190:22	191:21	listeners [1]	227:14	
120:20	127:1	135:12	joint [5]	94:8	152:21	59:17	60:17	214:25	229:10	lists [2]	68:13	200:9
141:20	154:22	155:22	152:22	152:25	227:18	62:12	71:21	leave [3]	12:25	Literally [1]	15:24	
213:22			jointly [9]	86:17		89:20	101:25	231:11		literature [1]	203:13	
IV [1]	68:8		89:21	95:13	227:22	149:2	150:25					
J [2]	2:21	2:22	234:3	234:16	235:3		151:1					
			236:2	236:10								

LLP [3] 2:3 2:9	March [3] 6:20	51:21 54:11 54:18	143:16	molecule [3] 44:17
2:11	9:13 153:15	57:7 59:15 60:15	memory [5] 102:25	44:24 64:21
LMB [11] 53:21	mark [6] 23:24 69:24	61:13 61:18 62:11	103:20 129:2 233:11	molecules [1] 44:19
56:24 59:9 70:20	98:18 133:4 152:1	67:19 68:14 71:9	233:13	moment [8] 5:23
75:7 76:8 76:13	161:22	74:19 85:6 87:18	mention [2] 108:23	46:20 121:9 141:4
87:18 102:24 158:11	marked [25] 4:16	88:1 92:24 93:21	199:12	143:1 165:4 220:6
158:15	8:6 8:13 18:21	111:2 124:6 138:7	mentioned [2] 108:24	236:25
located [3] 15:3	24:1 36:19 69:25	138:12 138:16 139:14	143:4	moments [1] 228:16
202:25 229:12	72:25 87:6 91:1	140:10 144:15 145:7	met [2] 100:25 101:5	Monday [1] 132:18
location [1] 190:10	91:8 97:13 97:16	150:10 150:14 150:24	method [7] 32:13	monitor [1] 5:10
logically [1] 163:9	98:19 98:22 100:19	151:14 151:18 151:19	32:24 32:24 33:15	Monroe [2] 2:19
longer [3] 13:19	121:2 130:2 161:15	152:2 152:18 152:23	135:17 173:1 175:3	3:4
229:14 229:16	164:18 165:24 165:25	153:4 154:1 155:2	methods [11] 167:17	month [2] 81:20
look [35] 19:21 19:22	207:2 207:5 224:24	156:8 156:24 167:14	172:6 172:15 173:5	230:9
20:25 24:8 24:12	marks [4] 90:20	170:8 171:5 172:12	174:1 174:3 174:4	months [6] 13:24
24:13 24:18 28:9	91:2 161:16 237:20	176:2 176:17 178:12	174:5 175:2 175:12	14:2 14:9 133:12
31:4 31:5 42:1	Martin [14] 37:3	178:17 181:3 182:3	175:17	133:20 229:17
42:10 42:12 42:14	70:13 71:21 72:8	182:13 185:4 188:6	Mewburn [14] 3:7	months' [3] 94:4
50:12 50:13 64:6	72:10 75:14 81:18	192:4 198:24 201:2	5:25 21:20 21:22	96:4 201:16
66:19 71:10 78:25	82:24 83:20 85:2	201:11 203:5 208:4	68:12 68:23 122:8	morale [1] 231:4
79:8 86:6 92:6	85:22 91:12 91:20	209:4 211:3 211:5	192:23 192:24 207:20	morning [4] 5:19
94:11 94:17 98:8	99:7	211:14 211:16 224:6	212:2 212:21 215:1	6:13 6:14 155:7
101:15 141:6 146:22	Martinsried/Planegg	233:14	220:9	MorphoSys [5] 1:4
148:19 158:18 185:2	[1] 2:15	McCafferty's [5]	Michael [1] 14:17	2:14 5:4 5:17
200:20 214:7 226:12	material [5] 199:7	69:12 76:7 145:11	Michelle [2] 2:11	7:24
looked [18] 8:25	199:10 199:11 199:12	153:2 228:13	5:17	Morris [2] 99:7
42:18 43:2 43:13	210:6	mean [40] 14:21	middle [1] 129:4	99:10
79:2 79:5 79:6	materials [13] 57:12	27:8 27:13 28:19	might [13] 33:20	most [11] 124:3
80:2 86:5 86:21	58:1 58:7 58:11	31:15 40:24 43:19	42:21 115:3 115:15	133:10 135:1 136:1
87:14 97:6 139:4	58:14 59:1 59:8	44:11 46:12 46:16	136:19 139:4 139:6	136:14 183:12 198:15
144:24 179:6 179:16	150:12 150:22 150:24	51:17 53:9 64:15	143:2 143:14 145:14	210:17 211:4 211:14
186:15 216:6	153:22 170:7 174:1	65:25 83:11 83:15	147:7 183:2 184:23	222:10
looking [32] 15:17	matter [10] 5:4	92:18 93:16 99:17	miles [1] 15:5	motifs [1] 146:17
33:10 43:11 44:15	91:21 127:23 134:3	122:3 129:5 132:9	Milton [1] 3:8	mouse [2] 133:6
74:3 74:16 94:18	145:9 159:25 163:16	134:13 137:15 137:15	mind [5] 90:7 115:18	147:16
112:2 114:8 116:2	185:6 206:20 221:18	148:9 148:22 149:19	116:24 190:20 199:15	move [1] 85:18
116:7 118:23 119:21	Matty [1] 133:8	152:11 156:21 162:1	mine [2] 21:17 37:9	MRC [60] 22:1
121:6 146:16 147:9	maximise [1] 44:23	178:25 181:17 185:1	minute [3] 36:22	27:23 30:16 36:8
147:12 147:14 158:3	may [58] 20:24 33:13	186:10 202:11 206:3	181:14 232:5	37:24 52:9 52:14
161:23 180:16 184:21	33:22 34:15 48:20	219:6 222:10 222:10	minutes [11] 70:20	54:15 54:20 54:21
185:4 185:16 185:18	48:23 52:16 54:2	meaning [3] 64:7	70:21 71:2 71:4	55:20 56:2 57:8
200:24 201:8 203:3	57:4 58:11 58:15	means [4] 71:25	81:24 165:5 165:10	59:17 60:17 61:20
213:23 214:2 218:7	58:18 58:22 59:7	110:23 112:8 221:20	179:16 195:24 219:17	62:8 62:13 63:21
222:24	63:12 65:12 70:3	mean [4] 19:23	232:6	65:8 65:24 69:11
looks [2] 84:21	76:3 81:16 85:25	61:15 64:23 171:7	minutes' [3] 90:13	71:7 71:8 72:17
166:23	86:25 87:22 89:23	Medical [7] 52:7	113:11 198:15	72:22 74:17 74:25
loose [2] 65:1 65:10	100:19 103:10 106:20	52:19 53:4 53:15	mis-using [1] 77:19	75:7 75:12 76:13
lunch [2] 118:8	111:20 114:5 114:5	82:16 83:4 83:21	misled [1] 146:15	81:3 81:9 81:17
138:11	114:6 114:6 116:17	medium [1] 174:25	mispronounce [1]	86:18 86:23 87:12
M [2] 2:11 3:6	122:21 125:22 126:13	meeting [21] 8:22	202:1	87:18 88:6 90:1
M029008 [1] 185:16	131:11 132:21 140:6	70:20 71:6 75:14	misspelled [2] 202:2	93:25 95:9 98:24
mabs [1] 146:17	144:10 145:1 156:18	78:16 78:19 78:22	202:5	99:7 99:8 144:16
machine [4] 202:11	158:3 164:13 165:14	79:1 101:1 101:3	mistake [1] 147:19	144:23 145:7 151:18
202:13 202:15 202:17	167:7 175:2 175:2	102:19 108:3 109:5	mistaken [1] 91:23	152:3 152:17 152:18
Madison [2] 2:4	180:4 186:14 188:2	112:22 112:25 113:6	mixing [1] 93:24	152:20 157:19 157:22
2:12	188:13 193:10 217:21	113:23 128:6 132:10	Mmmm [3] 60:13	158:15 202:20 213:19
main [5] 2:4 2:12	218:3 222:18 227:14	132:20 150:4	168:9 200:23	227:17 227:23
15:4 21:2 78:19	233:16 233:19	meetings [4] 78:17	model [1] 146:3	MS [3] 3:11 10:5
maintain [1] 6:21	MBIVR [2] 1:25	78:18 128:1 128:2	modifications [1]	164:19
management [2] 230:16 231:24	240:22	Mcg [1] 79:9	201:15	Muchin [3] 2:18
manager [1] 83:19	McAULIFFE [3] 2:3 2:9 2:11	Melvyn [2] 105:1	modified [2] 190:18	3:3 5:24
manner [1] 231:6	McCafferty [88]	105:2	215:17	must [3] 29:7 120:19
Mannheim [1] 132:14	4:20 11:7 11:17	Member [1] 240:3	modify [1] 139:5	125:7
manufacturers [1] 202:21	14:8 17:3 17:23	memo [1] 119:10	molecular [5] 57:8	mutagenesis [1] 175:4
manuscript [2] 133:12	20:14 23:10 23:21	memorandum [9]	172:23 174:2 175:17	mutually [1] 12:24
133:19	25:19 26:5 27:19	37:2 37:5 37:12	202:20	myself's [1] 220:12
	34:24 35:3 35:12	69:10 75:16 92:24		N [3] 2:1 3:1
	40:20 45:14 46:9	93:21 95:20 151:25		
	48:11 49:11 49:20	memories [2] 133:15		

4:1		Ninety-three [2]	nucleotide [1]	34:15	90:22 118:11 147:1	223:2 232:5 234:3
name [12]	14:19	111:21 111:22	number [33]	4:10	161:11 165:13 165:15	234:24 235:23 236:25
16:24 21:9 37:14		no-one [1] 141:16	5:3 5:8 7:19		199:23 219:22 232:8	237:5
40:3 99:10 99:17		nominees [1] 98:9	12:3 24:5 24:9		237:22	ones [4] 30:22 88:8
108:23 124:25 125:15		none [2] 79:3 79:4	24:9 24:13 24:16		offer [4] 42:20 128:8	90:7 145:2
145:19 216:18		nor [2] 240:10 240:14	24:21 25:15 41:13		136:17 173:1	onwards [3] 125:3
named [6] 27:23		Norma [1] 99:7	41:22 68:19 82:8		offered [3] 230:2	125:10 152:15
77:3 77:11 77:16		normally [1] 165:10	83:8 90:21 91:3		230:5 230:11	open [1] 223:9
77:20 224:20		Norris [2] 99:8	98:23 102:16 102:17		office [26] 14:7	operating [2] 153:8
names [2] 16:23		notary [1] 237:11	113:2 130:5 136:3		14:15 14:25 15:6	229:10
26:24		notations [2] 37:9	136:4 141:6 188:5		68:7 79:20 122:13	operator [1] 5:11
narrative [1] 228:23		37:11	207:7 223:10 225:25		123:2 123:11 123:18	opinion [2] 163:2
National [1] 149:14		note [16] 68:7 100:6	227:20 237:22		124:5 126:1 126:18	206:22
nature [4] 154:12		111:11 111:12 111:15	numbering [1] 92:12		128:25 129:2 129:10	opponents [1] 128:24
166:24 178:3 178:5		112:4 112:16 113:13	numbers [10] 8:11		205:3 205:16 205:24	opportunity [1] 165:23
nearby [1] 108:7		114:8 114:23 115:6	24:24 70:10 84:7		206:6 209:24 210:5	opposite [1] 115:24
Nearly [1] 70:6		132:22 133:5 146:13	91:10 125:8 127:13		210:11 215:18 215:20	opposition [10] 120:16
necessarily [4] 129:5		148:2 189:2	130:6 161:24 213:25		216:17	121:15 122:6 122:19
171:14 176:7 215:11		notebook [31] 8:9	NW [1] 2:9		officer [3] 124:17	124:5 127:1 128:21
necessary [3] 76:3		8:21 8:25 9:3	O'Brien [10] 20:15		124:19 124:20	129:3 204:23 208:22
81:16 132:4		9:5 9:10 9:11	21:10 21:14 22:6		officially [1] 12:4	options [1] 16:8
need [35] 18:3		9:12 9:17 9:18	25:23 78:14 188:6		officials [1] 231:14	oral [13] 1:12 88:10
28:8 29:8 29:10		9:20 9:23 9:25	188:7 192:7 192:8		often [2] 172:20 172:23	88:15 88:19 89:6
29:18 30:25 33:11		10:5 10:24 11:1	o'clock [1] 219:21		oligo [10] 185:24	89:8 89:12 89:13
33:13 33:14 33:22		20:25 35:23 36:2	object [26] 18:14		185:24 185:24 198:9	89:15 90:4 127:2
38:14 45:7 45:21		46:24 50:14 100:19	31:14 45:2 47:18		200:25 200:25 200:25	127:3 210:22
46:23 59:21 59:25		101:18 113:13 113:16	48:18 49:15 49:23		201:9 201:10 201:10	order [10] 1:11
104:23 106:13 111:4		113:18 131:12 145:17	50:20 52:12 62:20		oligonucleotide [3] 50:5	39:1 43:24 63:3
139:9 140:16 140:25		148:18 151:17 151:22	62:24 98:2 107:2		144:15 202:5	92:8 145:2 162:4
156:3 159:15 165:3		notebooks [3] 28:9	135:22 137:5 137:7		oligonucleotides [18] 40:22	200:12 217:1 237:19
177:11 188:2 189:4		35:5 151:20	139:17 166:5 169:9		46:11 46:13	ordinary [2] 177:3
189:19 200:18 204:4		notepaper [2] 68:13	176:24 198:3 203:18		46:19 46:21 46:25	177:5
210:16 222:2 237:8		109:11	211:7 214:20 221:21		49:22 50:3 50:9	organise [1] 37:25
237:11		notes [27] 8:22	234:5		59:13 138:14 138:17	organisms [1] 143:9
needed [2] 135:12		45:25 78:21 78:23	objected [3] 48:5		138:18 139:8 144:5	original [2] 10:13
139:4		78:24 79:1 103:15	140:3 234:18		185:15 202:18 202:22	10:18
needs [2] 33:25		103:25 104:14 106:13	objection [32] 6:5		oligos [4] 185:24	originated [2] 92:19
77:4		110:2 112:21 112:25	34:2 45:9 47:10		200:25 201:9 203:4	93:17
negatives [1] 69:14		113:1 113:8 113:20	47:17 50:24 51:24		once [4] 34:7 94:22	origins [1] 188:10
negotiated [1] 82:12		113:24 114:13 115:13	61:22 63:4 63:6		142:22 235:15	otherwise [4] 160:25
negotiating [1] 75:17		145:18 146:24 149:9	66:16 93:2 93:7		one [99] 2:4 2:12	173:24 210:16 240:14
Neilson [1] 99:22		149:19 151:25 164:9	93:10 116:17 121:16		6:6 7:21 9:21	ourselves [1] 232:7
neither [1] 240:10		164:22 240:5	138:20 140:4 140:6		10:21 11:24 16:8	outcome [1] 240:15
neutralise [1] 112:9		November [1] 208:8	140:23 155:13 175:14		16:13 17:2 18:7	outside [12] 154:15
never [12] 45:4		November/December [1] 177:23	179:25 182:23 186:25		30:10 30:10 30:18	168:3 187:5 187:10
53:15 62:13 62:23		now [63] 13:13 17:21	195:17 198:20 201:4		31:8 31:9 31:21	187:14 214:3 214:5
96:23 97:2 120:18		21:4 22:14 28:4	224:11 226:22 229:1		32:10 36:1 37:15	234:6 234:18 235:15
120:20 121:20 160:22		33:10 36:13 38:13	235:14		40:18 43:2 43:6	236:13 236:13
165:3 208:11		40:18 48:10 62:16	obligation [1] 216:23		55:25 65:14 67:12	over-arching [2] 125:21 126:13
new [6] 8:23 125:13		63:9 68:25 69:8	obligations [3] 7:2		67:12 71:23 73:4	overall [1] 236:4
207:6 230:13 230:20		70:2 74:7 75:23	51:15 51:17		73:14 75:25 78:19	own [9] 49:10 49:10
232:2		80:25 83:22 86:2	observation [1] 110:16		80:2 81:19 84:21	51:9 89:25 135:9
News [1] 150:6		91:8 97:5 101:2	obtain [6] 120:11		86:1 86:17 86:17	168:15 190:9 192:24
next [20] 12:3 13:24		103:1 111:16 113:12	150:11 153:18 169:7		87:6 87:21 96:17	236:22
14:2 14:24 21:13		114:4 114:8 119:14	173:6 218:7		97:20 98:13 98:13	owned [2] 89:21
33:10 40:18 46:8		132:21 133:15 134:16	obtained [9] 44:14		99:1 102:21 109:25	216:25
53:22 57:11 65:23		134:17 138:11 140:18	119:24 120:9 128:17		112:7 114:9 114:24	ownership [4] 74:18
111:19 130:1 132:22		145:18 146:10 146:25	150:24 151:4 153:15		118:23 131:16 131:21	74:18 74:22 75:12
168:15 173:23 175:7		147:11 152:11 155:9	obtaining [1] 120:6		131:24 131:25 135:18	P [4] 2:1 2:1
201:16 206:25 230:9		159:12 164:16 169:1	obviously [7] 68:22		136:19 136:23 136:24	3:1 3:1
nice [1] 141:19		171:23 176:14 178:4	85:12 121:10 130:23		141:11 141:15 141:18	P-e-t-r-e-s-k-o [1] 147:15
NIH [6] 119:24 149:13		186:13 190:25 198:12	150:17 153:12 192:22		142:18 143:3 146:21	P-o-l-l-a-r-d-s [1] 15:11
150:3 204:21 208:8		199:16 207:9 212:6	occasion [2] 21:14		151:3 155:11 157:10	P17 [1] 147:21
209:15		213:1 214:3 217:17	218:25		157:22 158:1 163:9	
nine [1] 16:22		219:7 222:6 224:18	occurred [3] 224:2		167:24 170:1 173:3	
ninety [1] 138:2		226:18 227:1 227:11	224:8 226:21		175:22 181:7 182:1	
		228:11	odd [2] 77:18 91:15		182:21 183:23 188:24	
			off [12] 14:7 56:12		191:17 193:17 202:19	
					202:20 203:22 206:7	
					206:18 213:18 213:19	
					213:23 216:5 216:20	

pAb [2] 181:2 183:5	Parmley [4] 42:14	219:9 219:11 220:13	143:5 152:13 152:14	phrased [1] 52:4
package [3] 32:14	42:17 138:3 170:11	220:15 220:25 224:20	152:15 152:17 164:1	physical [5] 144:14
32:24 97:12	part [34] 20:12 20:18	227:18 227:19 233:24	204:10 204:11 209:4	150:22 150:24 193:25
page [83] 4:4	34:23 37:23 38:21	235:17	219:7	194:3
4:10 19:4 19:8	57:8 61:13 61:17	patenter [1] 21:6	permit [1] 118:3	physically [3] 46:15
19:22 20:1 21:13	65:12 69:2 78:8	patents [6] 68:9	permitted [2] 62:25	46:18 144:19
21:13 24:8 24:10	95:8 107:24 108:8	102:1 102:25 115:20	231:7	pick [2] 187:11 218:25
24:19 32:21 33:10	121:3 137:3 137:11	163:20 163:20	person [11] 21:9	picked [1] 122:2
33:18 33:18 34:13	138:6 141:9 146:6	PAUL [1] 239:10	27:23 94:4 95:6	piece [7] 25:8 25:9
36:12 38:14 61:8	150:18 157:10 167:6	pause [1] 237:1	96:18 99:24 124:3	25:12 95:12 95:13
68:8 70:23 72:1	167:7 167:11 173:1	pausing [1] 56:9	210:18 221:5 221:6	109:3 123:5
84:5 84:10 85:18	174:17 175:8 176:15	pay [2] 12:21 12:23	233:21	Piecznick [2] 102:10
86:7 92:16 94:17	197:20 204:23 204:25	paying [1] 22:4	person-to-person [1] 129:24	102:22
101:20 101:21 102:15	206:4 235:24	payments [1] 230:6	personal [7] 79:11	pile [2] 129:3 147:2
103:20 104:6 104:6	partially [1] 56:23	PCT [10] 78:4 111:9	79:13 79:15 79:18	place [7] 5:12 14:6
104:7 104:10 104:10	participate [1] 127:22	191:16 215:15 224:3	106:18 106:23 221:18	36:10 72:24 82:7
106:3 111:17 112:5	participation [1] 127:16	224:16 226:20 227:2	personally [11] 18:11	130:4 178:10
114:10 114:21 118:24	particles [3] 174:14	227:6 228:12	38:4 79:5 79:6	placed [8] 24:3
121:12 130:14 130:18	174:16 174:24	PEG [2] 112:6 112:9	79:23 80:24 156:10	70:9 91:7 97:15
131:17 132:5 132:23	particular [37] 7:22	pellet [1] 112:7	220:19 221:4 229:22	164:5 164:21 207:4
133:2 133:4 145:19	9:5 20:16 21:3	pending [1] 7:23	230:8	226:19
145:22 146:23 146:24	21:24 22:3 23:14	people [43] 11:15	personnel [4] 229:25	placement [1] 96:19
146:25 148:19 148:22	27:6 28:18 29:22	16:22 20:8 20:12	230:17 230:19 231:3	places [2] 136:23
163:19 168:10 174:12	38:12 50:5 69:23	23:15 39:5 39:9	persons [6] 148:10	136:25
175:21 180:15 180:17	85:17 99:11 127:18	39:12 39:18 39:20	154:2 198:13 198:22	placing [2] 98:21
180:22 183:15 184:17	135:1 146:21 148:15	40:2 40:15 45:21	211:4 211:14	161:21
185:16 186:24 188:20	155:22 155:24 157:2	71:22 75:4 85:8	perspective [1] 228:20	plaintiff [3] 1:5
189:22 191:7 196:4	158:1 174:17 182:12	102:21 105:18 106:1	pertains [1] 83:12	2:2 5:16
200:7 200:21 200:24	184:1 188:10 190:13	108:21 110:2 122:9	Peter [3] 125:1 125:10	plan [2] 133:16 141:9
201:9 203:5 214:12	190:14 199:2 200:7	141:7 143:19 153:13	125:14	plans [1] 16:16
216:7 225:4 226:4	207:18 210:7 216:5	153:23 161:9 188:5	Petresko [1] 147:15	plants [1] 146:2
238:2	221:1 226:10 231:3	193:23 195:14 196:8	petty [2] 166:4 166:8	platform [1] 141:21
pages [6] 84:7	particularly [6] 11:17	196:16 197:3 215:1	phage [86] 21:3	play [2] 164:2 197:21
101:14 104:1 104:1	185:25 187:5 187:9	215:3 219:11 220:13	27:20 28:6 32:15	Plaza [2] 1:21
161:25 164:25	187:13 230:18	220:15 221:5 229:11	35:6 35:9 35:13	5:13
paging [1] 8:8	parties [2] 240:11	230:2 230:17 231:6	36:3 36:6 39:8	plural [2] 78:17
paid [4] 13:19 49:3	240:14	people's [1] 28:9	39:13 39:22 39:23	78:18
51:6 228:13	parts [5] 59:16 60:16	PepTech [10] 89:1	39:25 41:13 41:22	pm [13] 118:13 118:14
paper [25] 25:8	167:9 167:13 188:18	89:24 90:1 98:9	42:4 42:22 42:25	161:13 161:14 165:17
25:9 25:12 27:6	party [1] 85:16	98:15 99:19 100:1	43:8 43:11 46:1	165:18 199:25 200:1
27:24 42:15 42:16	passive [2] 135:14	100:4 100:8 100:11	58:2 64:22 85:21	219:24 219:25 232:10
42:17 109:4 123:5	135:18	peptide [12] 43:1	104:17 104:18 105:4	232:11 237:24
156:3 167:19 170:13	past [2] 20:11 44:15	44:6 88:25 99:19	105:7 106:10 106:18	point [49] 9:8
171:10 172:5 172:20	patent [89] 11:6	107:10 135:15 135:18	106:24 107:9 108:16	13:12 22:4 35:2
178:2 178:3 179:3	11:7 11:10 17:23	146:12 146:17 147:16	110:14 112:7 112:10	38:12 38:15 38:17
180:6 180:7 182:20	18:13 19:10 19:16	147:20 150:2	119:12 120:7 123:17	39:1 40:19 49:18
186:18 195:8 195:10	25:13 27:10 30:11	peptides [13] 43:14	133:11 133:17 134:12	78:15 94:7 100:24
papers [10] 65:10	66:6 68:7 69:12	107:9 134:22 134:24	134:19 134:22 134:24	113:19 132:5 132:15
101:2 105:11 121:25	71:8 71:10 72:5	135:4 136:21 137:1	135:4 135:9 135:15	135:13 136:18 139:10
147:2 157:8 170:10	72:11 74:19 77:3	142:11 143:20 143:24	137:13 138:18 139:1	151:15 153:14 157:23
170:14 171:21 195:1	77:11 77:17 77:21	146:4 146:7 198:10	139:16 140:12 147:16	159:7 167:25 170:21
paragraph [25] 38:17	84:25 102:16 111:2	per [14] 74:18 74:18	147:20 150:6 153:21	171:9 175:23 176:16
38:18 53:17 60:2	111:5 115:21 116:16	74:21 75:12 75:20	163:3 164:2 169:7	176:22 177:16 179:15
64:9 72:1 98:8	116:22 120:14 122:6	86:25 97:24 98:9	170:9 172:18 173:6	181:1 181:10 182:1
119:2 168:2 168:11	122:10 122:13 122:19	157:20 157:23 158:12	175:5 194:12 194:12	182:7 182:14 184:9
168:15 174:12 174:13	123:2 123:11 123:17	158:13 158:16 158:17	194:21 194:22 195:15	188:19 189:16 189:21
174:19 175:7 179:19	124:5 124:6 126:1	percentage [1] 157:9	196:11 196:22 197:2	190:2 190:11 192:15
180:20 180:21 181:15	126:18 128:25 129:2	perform [1] 173:25	197:10 198:10 199:1	200:19 201:17 216:23
182:11 182:14 188:24	129:10 129:15 150:15	perhaps [5] 32:4	199:10 199:11 210:20	221:16 221:20 221:25
189:9 189:12 200:8	151:2 163:1 173:9	60:3 76:6 85:3	211:5 211:16 212:3	pointed [3] 115:25
paragraphs [10] 168:1	173:12 179:22 188:9	139:7	212:22	178:20 207:17
168:16 168:22 169:1	203:16 203:16 203:23	period [29] 14:18	phages [2] 168:11	pointing [2] 114:24
169:4 170:3 170:15	204:2 204:8 204:18	15:13 45:25 54:11	189:4	130:13
170:19 171:24 178:20	204:20 205:3 205:9	57:9 58:10 58:15	PhD [6] 2:14 3:3	points [6] 92:8
paraphrase [1] 230:19	205:16 205:23 206:6	58:16 58:17 58:19	11:3 149:5 227:9	92:11 151:3 177:19
paraphrasing [1] 215:25	206:8 206:8 206:23	58:19 59:7 80:13	239:10	182:7 184:7
Pardon [2] 91:17	209:23 210:5 210:7	87:12 89:2 89:10	phrase [4] 65:23	Pollards [2] 15:9
184:4	210:10 210:11 213:15	96:14 124:10 124:23	81:16 172:7 222:13	
Park [2] 3:7 30:18	213:16 213:22 215:12			
	215:18 215:20 216:17			

229:20	122:7	91:25 175:6	106:2 133:12 133:25	Re-examination [1]
poor [1] 37:1	presentation [4]	producing [3] 32:14	148:1 169:14 174:6	4:6
Pope [3] 14:17 14:21	101:10 101:12 107:24	32:24 175:4	publications [9]	re-focusing [1] 11:20
14:22	146:1	product [1] 229:18	107:10 107:10 115:4	re-read [4] 38:21
portion [7] 19:7	presentations [1]	production [1] 85:20	115:16 116:9 116:15	60:2 177:11 212:11
33:4 103:15 133:1	110:3	programme [7] 92:21	116:20 117:22 136:2	reached [1] 89:9
193:3 199:4 236:23	presently [2] 6:15	93:1 93:18 93:23	publish [2] 133:18	read [159] 10:9
portions [6] 33:22	186:7	94:8 139:11 152:22	170:1	10:10 10:13 10:19
145:22 187:24 189:4	president [2] 124:12	progress [1] 152:1	published [8] 101:12	29:14 31:1 31:9
193:5 193:13	124:14	progressed [3] 143:6	133:20 136:25 137:17	31:12 31:22 32:9
posed [1] 141:19	presumably [6] 41:4	144:6 144:9	137:24 166:24 178:2	32:19 33:3 33:11
position [19] 72:14	72:7 85:16 113:22	project [11] 17:20	178:3	33:16 33:18 33:22
72:17 72:21 75:6	134:7 210:15	21:2 21:2 29:1	pull [1] 146:17	33:25 33:25 34:7
75:11 76:7 92:22	pretty [2] 37:1	38:1 51:10 58:3	pulling [1] 76:24	34:11 34:12 37:20
93:5 93:9 93:19	202:17	138:24 152:25 233:4	purport [1] 70:21	38:15 38:16 38:18
94:7 96:18 96:22	prevents [1] 228:25	233:12	purports [6] 37:2	39:3 41:16 46:9
96:23 100:10 156:12	previous [2] 102:15	projects [1] 149:3	91:11 91:19 92:7	47:24 49:17 53:17
157:17 159:10 220:16	183:21	prolong [3] 222:15	98:24 112:21	53:19 54:3 55:6
positions [2] 170:18	previously [3] 4:16	223:16 233:22	purposes [1] 87:13	55:7 56:22 56:25
230:11	94:4 121:2	promised [1] 219:20	pursue [1] 159:25	57:23 58:5 58:13
possession [3] 92:4	Primarily [2] 45:14	proper [7] 43:17	pursuing [1] 87:10	59:21 60:6 60:8
223:9 223:11	124:7	49:16 49:24 50:21	pursuit [2] 137:3	60:25 63:10 64:8
possibility [4] 15:21	primary [2] 22:25	109:20 159:25 203:19	137:12	65:6 65:12 65:13
134:23 190:19 190:22	23:7	properly [1] 216:14	put [25] 26:25 44:22	65:21 65:22 65:23
possible [7] 43:7	prime [2] 204:17	property [7] 65:9	53:18 69:6 76:25	67:3 70:11 72:19
71:19 73:17 142:21	215:16	65:24 66:3 72:15	80:18 95:8 97:10	73:7 75:23 75:25
146:17 192:10 231:6	primer [1] 112:8	94:21 95:10 95:13	115:1 119:12 121:1	76:1 76:10 76:23
possibly [2] 81:18	principal [1] 15:16	proportion [1] 74:22	125:22 126:14 139:24	77:7 81:10 82:18
176:12	priority [34] 19:10	proposal [2] 92:13	142:4 146:16 147:8	82:19 83:1 83:7
post-doc [1] 149:5	20:7 23:16 25:16	208:8	164:13 179:7 188:8	92:18 93:14 93:15
post-docs [1] 149:7	26:20 27:10 30:1	proposed [4] 92:12	195:4 213:22 215:22	94:21 94:21 94:22
potential [9] 40:21	31:18 66:9 67:22	106:10 106:14 150:1	229:1 239:6	101:17 101:19 101:20
41:8 46:10 59:12	68:6 68:24 69:2	prosecute [1] 204:18	putting [1] 161:3	101:21 104:3 111:25
139:6 143:5 144:3	117:9 153:3 153:6	prosecuting [1] 121:25	quadrant [1] 185:17	112:4 114:18 114:18
182:7 217:2	154:21 155:11 155:24	prosecution [11]	qualifications [1]	114:19 119:3 122:12
practical [8] 27:19	164:11 186:14 186:17	120:13 122:10 123:18	64:4	122:15 129:6 131:1
28:19 28:24 40:11	188:18 191:6 191:8	129:16 204:2 204:5	qualified [1] 139:20	131:2 131:6 131:19
141:16 142:16 142:22	193:12 194:1 194:10	204:8 204:20 208:21	questions [18] 18:3	131:25 133:1 137:20
154:7	194:19 195:16 200:6	215:17 219:8	38:19 53:19 93:11	137:22 138:1 145:20
practice [1] 131:2	227:19 227:21 233:3	protect [1] 154:11	126:3 126:5 141:18	146:15 149:10 149:11
preamble [1] 228:1	private [1] 119:15	protected [1] 154:13	143:20 155:7 165:12	157:13 157:25 165:3
preceded [1] 87:6	privately [1] 114:25	protective [2] 1:11	219:9 223:16 232:15	165:5 165:6 165:11
precise [1] 124:17	privileged [6] 73:21	237:19	232:23 232:24 233:21	168:17 168:17 168:19
precisely [6] 77:24	73:23 116:25 159:16	protein [5] 44:13	235:20 239:6	168:20 170:6 170:7
83:6 115:11 144:8	212:9 213:4	98:17 135:11 143:19	quick [1] 178:19	171:17 172:7 173:17
220:14 234:17	problem [5] 11:25	147:22	quite [13] 16:21	177:12 179:20 180:12
preface [3] 208:6	40:6 40:8 42:2	proteins [2] 43:14	46:23 49:8 51:16	180:25 185:8 187:7
209:5 209:11	42:3	47:4	58:10 86:25 88:12	188:21 189:4 189:9
prejudice [5] 194:11	problems [3] 140:15	protocols [5] 167:17	95:3 104:12 142:4	189:19 189:20 190:1
194:20 195:2 195:4	141:11 142:23	172:7 172:16 173:23	150:16 175:1 221:19	194:15 196:6 198:14
197:8	Procedure [1] 63:1	173:25	quoted [1] 148:9	200:17 201:22 205:17
preliminary [3] 37:13	procedures [3] 172:8	prove [2] 115:3	R [2] 2:1 3:1	207:10 207:13 207:23
37:18 43:24	175:12 175:13	115:15	rabbits [2] 147:18	212:18 214:5 214:9
preparation [10]	proceed [2] 189:17	provide [5] 72:4	147:21	214:13 214:15 216:1
23:5 36:21 73:15	225:17	72:8 81:21 81:24	raise [1] 147:20	216:3 216:12 216:12
97:21 99:2 127:23	proceeding [4] 122:14	179:21	rapid [1] 112:6	216:14 217:5 218:5
128:1 156:18 194:10	122:19 127:17 127:18	provided [7] 81:23	rather [12] 11:2	218:14 218:20 218:21
194:19	proceedings [14]	93:25 180:11 188:4	53:5 115:24 143:15	222:18 222:19 227:11
prepare [1] 71:2	112:18 121:15 123:18	188:13 210:8 237:13	158:12 158:16 168:19	227:15 228:7 234:23
prepared [7] 37:16	126:1 126:18 127:2	provides [1] 32:23	174:18 215:25 219:11	236:9 239:2
37:19 113:20 193:20	127:3 127:21 127:23	providing [2] 82:1	223:18 229:16	reading [18] 31:25
193:21 193:22 194:1	129:16 161:22 178:11	180:13	RE-DIRECT [1]	39:2 40:24 53:21
preparing [4] 30:7	204:24 207:6	provisions [1] 209:23	232:21	58:20 70:1 70:5
73:5 109:13 124:4	process [6] 20:13	public [2] 137:17	re-discovered [1]	72:1 174:22 182:11
presence [1] 6:6	145:6 171:13 171:16	205:11	9:11	184:6 200:12 208:14
present [5] 32:23	214:22 215:4	publication [7] 105:9	re-drafting [1] 190:12	214:3 216:2 216:17
78:20 90:8 108:4	produced [3] 80:22		162:11	217:8 235:4
				readings [1] 189:15
				reads [4] 46:8 46:17
				57:11 114:24
				ready [2] 162:10
				162:11



<b>reagents</b> [2] 153:16 154:5	<b>134:3</b> 138:15 157:14 159:20 161:12 161:18 165:13 165:16 165:20 179:21 186:8 189:14 191:22 192:9 199:24 200:3 200:18 201:23 207:16 208:23 219:4 219:23 220:2 227:13 227:14 228:7 228:18 229:7 232:9 232:13 232:19 233:22 237:18 237:23 239:5 240:7	<b>159:20</b> 171:20 <b>refresh</b> [6] 55:12 81:1 120:25 121:11 145:15 180:10 <b>refreshed</b> [2] 145:13 155:16 <b>refreshes</b> [2] 55:7 111:13 <b>regard</b> [3] 51:8 120:24 154:18 <b>region</b> [1] 34:16 <b>regular</b> [1] 150:6 <b>regulations</b> [1] 210:9 <b>relate</b> [6] 24:7 103:15 105:24 112:25 145:22 214:18 <b>related</b> [12] 30:10 43:13 74:3 79:25 88:5 88:7 97:8 102:9 132:11 133:10 185:6 240:10 <b>relates</b> [7] 113:13 117:8 131:20 131:24 133:2 182:13 221:6 <b>relating</b> [13] 30:15 35:2 36:7 68:23 71:8 113:5 131:13 132:7 132:24 136:18 145:17 178:21 224:5 <b>relation</b> [3] 67:15 67:17 185:20 <b>relationship</b> [7] 6:22 67:24 68:1 68:4 88:6 100:3 228:19 <b>relative</b> [2] 232:19 240:12 <b>relatively</b> [3] 43:1 44:10 106:1 <b>relevance</b> [1] 105:19 <b>relevant</b> [1] 114:1 <b>reluctance</b> [1] 76:5 <b>remain</b> [2] 230:10 230:12 <b>remember</b> [19] 9:18 9:19 12:6 33:5 87:23 99:9 102:18 123:9 130:24 132:13 133:24 134:2 134:17 179:16 183:8 194:8 194:18 202:16 217:8 <b>remembering</b> [1] 23:3 <b>remotely</b> [1] 153:8 <b>repeat</b> [7] 29:12 32:5 47:22 137:9 140:7 194:13 201:6 <b>repeated</b> [1] 211:11 <b>repertoire</b> [1] 28:13 <b>rephrase</b> [9] 13:6 18:2 29:12 41:1 50:16 139:22 159:8 181:8 205:19 <b>rephrasing</b> [1] 45:5 <b>replies</b> [1] 157:22 <b>report</b> [14] 30:18 109:4 109:6 109:12 109:14 109:18 109:20	<b>109:23</b> 110:1 110:8 111:8 152:5 152:19 169:18 <b>reported</b> [4] 1:25 154:19 173:7 182:13 <b>reporter</b> [40] 6:2 6:3 29:15 32:6 32:8 41:18 47:23 47:25 48:4 60:5 60:10 60:14 60:24 61:1 63:16 67:2 67:4 72:18 72:20 93:13 93:15 106:22 116:19 126:11 137:10 140:9 177:14 187:13 194:15 194:17 201:8 211:13 212:19 218:9 218:16 218:23 234:24 235:1 240:1 240:3 <b>Reporters</b> [1] 240:4 <b>reports</b> [2] 109:24 109:25 <b>repository</b> [2] 149:15 150:1 <b>represent</b> [6] 5:15 121:4 121:5 216:3 216:16 220:24 <b>representation</b> [1] 106:12 <b>representative</b> [2] 69:11 81:3 <b>representatives</b> [2] 76:14 81:8 <b>representing</b> [3] 5:20 21:22 22:1 <b>request</b> [7] 56:6 56:8 194:5 215:20 217:10 217:16 218:11 <b>requests</b> [1] 223:10 <b>require</b> [2] 53:8 54:18 <b>required</b> [8] 51:21 52:10 52:21 54:15 55:20 56:1 129:3 229:17 <b>requirement</b> [1] 62:10 <b>research</b> [14] 52:8 52:19 53:5 53:15 82:16 83:4 83:21 85:21 92:21 92:25 93:18 93:22 229:16 229:16 <b>reserve</b> [1] 214:15 <b>resolution</b> [2] 86:19 86:23 <b>resource</b> [1] 142:3 <b>respect</b> [42] 19:6 23:13 26:16 28:23 28:25 35:6 35:13 36:2 42:9 42:21 43:8 69:12 106:18 106:24 107:12 117:22 117:24 120:1 120:6 123:16 125:25 126:17 127:17 127:22 128:24 134:11 134:19 135:7 136:11 139:15 140:11 202:8 204:2 220:23 224:5 224:7 224:15	<b>232:24</b> 233:12 234:2 235:12 236:8 <b>respects</b> [1] 129:9 <b>respond</b> [1] 212:8 <b>responding</b> [5] 91:24 92:7 159:14 217:15 218:11 <b>response</b> [3] 92:9 99:6 163:12 <b>responses</b> [1] 239:6 <b>responsibility</b> [3] 80:16 125:17 204:17 <b>responsible</b> [2] 124:3 221:14 <b>rest</b> [2] 65:7 174:18 <b>restate</b> [2] 61:6 151:11 <b>restricted</b> [1] 235:5 <b>restrictions</b> [1] 136:5 <b>result</b> [9] 7:17 92:20 92:25 93:18 93:22 150:25 176:17 224:18 229:19 <b>resulted</b> [2] 172:17 215:4 <b>results</b> [4] 11:20 175:20 180:16 184:7 <b>Resumed</b> [8] 56:15 90:25 118:14 161:14 165:18 200:1 219:25 232:11 <b>returning</b> [1] 118:18 <b>reveal</b> [1] 159:15 <b>revealing</b> [2] 117:19 217:24 <b>review</b> [22] 29:10 29:18 29:24 30:6 30:9 30:14 59:25 70:7 73:25 74:7 102:8 104:5 155:8 162:8 165:23 167:20 169:22 171:24 178:19 224:7 224:18 237:6 <b>reviewed</b> [53] 8:17 9:10 9:13 19:1 22:15 22:19 25:22 26:10 30:13 30:15 30:16 30:19 31:10 34:6 36:7 36:20 36:25 37:22 38:23 53:9 60:1 70:4 71:1 73:5 73:12 73:15 74:5 82:13 83:25 85:17 97:21 99:2 103:19 113:16 147:3 155:11 158:7 162:10 165:7 171:19 174:10 188:25 189:8 190:4 191:2 191:13 200:22 207:21 214:10 214:14 222:21 223:24 236:15 <b>reviewing</b> [1] 159:22 <b>reward</b> [1] 38:1 <b>right</b> [46] 18:17 27:16 30:12 31:2 34:10 37:10 40:6 50:8 61:21 65:25
-------------------------------------	--	---	--	--

20 171:20	109:23 110:1 110:8	232:24 233:12 234:2
esh [6] 55:12	111:8 152:5 152:19	235:12 236:8
1 120:25 121:11	169:18	respects [1] 129:9
15 180:10	reported [4] 1:25	respond [1] 212:8
shed [2] 145:13	154:19 173:7 182:13	responding [5] 91:24
16	reporter [40] 6:2	92:7 159:14 217:15
eshes [2] 55:7	6:3 29:15 32:6	218:11
13	32:8 41:18 47:23	response [3] 92:9
ard [3] 51:8	47:25 48:4 60:5	99:6 163:12
24 154:18	60:10 60:14 60:24	responses [1] 239:6
on [1] 34:16	61:1 63:16 67:2	responsibility [3] 80:16 125:17 204:17
ular [1] 150:6	67:4 72:18 72:20	responsible [2] 124:3
ulations [1] 210:9	93:13 93:15 106:22	221:14
ite [6] 24:7	116:19 126:11 137:10	rest [2] 65:7 174:18
15 105:24 112:25	140:9 177:14 187:13	restate [2] 61:6
22 214:18	194:15 194:17 201:8	151:11
ted [12] 30:10	211:13 212:19 218:9	restricted [1] 235:5
13 74:3 79:25	218:16 218:23 234:24	restrictions [1] 136:5
5 88:7 97:8	235:1 240:1 240:3	result [9] 7:17
9 132:11 133:10	Reporters [1] 240:4	92:20 92:25 93:18
6 240:10	reports [2] 109:24	93:22 150:25 176:17
ates [7] 113:13	109:25	224:18 229:19
78 131:20 131:24	repository [2] 149:15	resulted [2] 172:17
3:2 182:13 221:6	150:1	215:4
ating [13] 30:15	represent [6] 5:15	results [4] 11:20
2 36:7 68:23	121:4 121:5 216:3	175:20 180:16 184:7
8 113:5 131:13	216:16 220:24	Resumed [8] 56:15
2:7 132:24 136:18	representation [1] 106:12	90:25 118:14 161:14
5:17 178:21 224:5	representative [2] 69:11 81:3	165:18 200:1 219:25
ation [3] 67:15	representatives [2] 76:14 81:8	232:11
17 185:20	representing [3] 5:20 21:22 22:1	returning [1] 118:18
ationship [7] 6:22	request [7] 56:6	reveal [1] 159:15
24 68:1 68:4	56:8 194:5 215:20	revealing [2] 117:19
6 100:3 228:19	217:10 217:16 218:11	217:24
ative [2] 232:19	requests [1] 223:10	review [22] 29:10
0:12	require [2] 53:8	29:18 29:24 30:6
atively [3] 43:1	54:18	30:9 30:14 59:25
10 106:1	required [8] 51:21	70:7 73:25 74:7
evance [1] 105:19	52:10 52:21 54:15	102:8 104:5 155:8
evant [1] 114:1	55:20 56:1 129:3	162:8 165:23 167:20
uctance [1] 76:5	229:17	169:22 171:24 178:19
ain [2] 230:10	requirement [1] 62:10	224:7 224:18 237:6
0:12	research [14] 52:8	reviewed [53] 8:17
ember [19] 9:18	52:19 53:5 53:15	9:10 9:13 19:1
9 12:6 33:5	82:16 83:4 83:21	22:15 22:19 25:22
23 99:9 102:18	85:21 92:21 92:25	26:10 30:13 30:15
3:9 130:24 132:13	93:18 93:22 229:16	30:16 30:19 31:10
3:24 134:2 134:17	229:16	34:6 36:7 36:20
9:16 183:8 194:8	reserve [1] 214:15	36:25 37:22 38:23
4:18 202:16 217:8	resolution [2] 86:19	53:9 60:1 70:4
embering [1] 3	86:23	71:1 73:5 73:12
3	resource [1] 142:3	73:15 74:5 82:13
otely [1] 153:8	respect [42] 19:6	83:25 85:17 97:21
eat [7] 29:12	23:13 26:16 28:23	99:2 103:19 113:16
5 47:22 137:9	28:25 35:6 35:13	147:3 155:11 158:7
0:7 194:13 201:6	36:2 42:9 42:21	162:10 165:7 171:19
eated [1] 211:11	43:8 69:12 106:18	174:10 188:25 189:8
ertoire [1] 28:13	106:24 107:12 117:22	190:4 191:2 191:13
hrase [9] 13:6	117:24 120:1 120:6	200:22 207:21 214:10
2 29:12 41:1	123:16 125:25 126:17	214:14 222:21 223:24
16 139:22 159:8	127:17 127:22 128:24	236:15
1:8 205:19	134:11 134:19 135:7	reviewing [1] 159:22
hrasing [1] 45:5	136:11 139:15 140:11	reward [1] 38:1
lies [1] 157:22	202:8 204:2 220:23	right [46] 18:17
ort [14] 30:18	224:5 224:7 224:15	27:16 30:12 31:2
9:4 109:6 109:12		34:10 37:10 40:6
9:14 109:18 109:20		50:8 61:21 65:25

24	233:12	234:2
12	236:8	
ects [1]	129:9	
ond [1]	212:8	
onding [5]	91:24	
	159:14	217:15
11		
onse [3]	92:9	
	163:12	
onses [1]	239:6	
onsibility [3]		
6	125:17	204:17
onsible [2]	124:3	
14		
[2]	65:7	174:18
ite [2]	61:6	
11		
icted [1]	235:5	
ictions [1]	136:5	
lt [9]	7:17	
0	92:25	93:18
2	150:25	176:17
18	229:19	
lted [2]	172:17	
4		
lts [4]	11:20	
20	180:16	184:7
umed [8]	56:15	
5	118:14	161:14
18	200:1	219:25
11		
arning [1]	118:18	
al [1]	159:15	
aling [2]	117:19	
24		
ew [22]	29:10	
8	29:24	30:6
9	30:14	59:25
7	73:25	74:7
8	104:5	155:8
8	165:23	167:20
22	171:24	178:19
7	224:18	237:6
ewed [53]	8:17	
0	9:13	19:1
5	22:19	25:22
10	30:13	30:15
16	30:19	31:10
5	36:7	36:20
25	37:22	38:23
9	60:1	70:4
1	73:5	73:12
15	74:5	82:13
25	85:17	97:21
2	103:19	113:16
7:3	155:11	158:7
2:10	165:7	171:19
2:10	188:25	189:8
4:4	191:2	191:13
0:22	207:21	214:10
4:14	222:21	223:24
5:15		
iewing [1]	159:22	
ard [1]	38:1	
ht [46]	18:17	
16	30:12	31:2
10	37:10	40:6
8	61:21	65:25

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67:11 67:14 69:4	ScFv [1] 115:1	55:18 66:4 101:11	226:8 230:11	sit [12] 40:1 83:13
73:9 87:19 89:7	schedule [3] 85:10	125:21 126:13 129:20	severance [2] 228:18	90:6 144:13 148:6
90:4 90:9 99:9	85:12 85:14	129:21 152:25 177:5	230:6	186:5 187:25 190:20
100:23 102:3 103:3	science [3] 3:7	senses [1] 200:11	severely [1] 88:12	205:7 205:8 205:13
104:4 110:7 111:23	163:3 199:5	sensible [1] 142:4	shall [10] 69:6	221:12
116:25 117:1 127:9	scientific [12] 11:9	sent [3] 70:19 113:24	70:1 86:16 90:12	site [19] 15:4 15:8
127:10 132:2 140:18	11:12 65:10 105:18	162:16	92:18 102:2 103:8	41:12 41:21 42:5
149:11 158:22 158:23	110:1 169:13 169:16	sentence [66] 31:5	125:5 211:19 214:3	42:10 42:21 43:7
159:25 160:10 168:4	169:18 171:11 197:20	31:8 31:9 31:12	share [8] 37:25 65:8	43:7 43:17 43:21
168:7 168:25 170:1	203:13 214:17	31:21 32:9 32:11	65:24 75:7 75:21	143:22 143:23 144:3
176:14 185:2 202:3	scientifically [2]	32:16 32:19 33:1	95:9 97:25 98:10	171:4 171:6 203:6
207:9 214:15 233:21	11:16 203:10	34:12 35:16 39:3	shared [2] 75:5	203:7 203:12
right-hand [2] 163:21	scientist [1] 45:20	39:10 39:16 40:8	95:14	sites [10] 41:13
185:17	scientists [1] 134:23	40:18 40:23 41:4	shares [1] 77:25	41:22 42:24 46:3
Road [1] 3:8	scope [7] 86:7	46:8 47:2 49:14	sheet [7] 27:24 70:12	139:6 143:5 143:12
role [10] 19:6 104:11	86:13 234:6 234:18	51:18 53:20 55:7	222:11 222:24 226:2	143:18 170:18 171:1
104:12 134:11 134:18	235:15 236:13 236:14	56:22 57:11 58:5	234:4 237:12	situation [2] 13:23
134:21 135:5 186:22	Scott [4] 148:23 149:2	58:13 58:20 58:21	short [13] 43:1	137:16
204:1 220:12	149:8 149:25	59:1 64:6 64:8	56:14 90:24 110:4	six [4] 94:3 96:4
Ron [9] 17:8 17:15	screening [1] 85:21	64:15 64:24 65:7	118:13 161:13 165:17	96:6 201:16
20:16 20:21 123:22	Scan [6] 3:6 5:25	65:13 71:25 75:25	189:24 190:9 198:9	size [1] 204:17
124:7 128:3 192:11	121:7 129:17 209:9	76:9 76:23 92:1	199:25 219:24 232:10	skill [1] 240:7
233:16	209:15	94:21 95:2 95:9	shorthand [1] 172:21	skills [2] 16:10
Ron's [2] 17:17	search [3] 79:11	157:13 172:11 179:20	show [9] 8:6 18:20	230:14
20:25	79:13 80:24	180:12 183:14 183:20	27:20 112:17 115:3	Skilton [244] 2:6
room [2] 79:20 158:3	searched [1] 79:24	184:13 184:18 189:3	115:15 120:23 145:14	4:5 4:6 5:16
Rosenman [3] 2:18	searches [2] 79:16	190:14 196:3 196:5	208:23	5:17 6:5 6:12
3:3 5:24	79:18	196:12 196:25 197:8	showed [3] 42:23	8:5 8:14 10:3
roughly [6] 31:7	second [15] 37:20	201:21 202:10 203:1	42:24 150:4	10:8 10:12 10:14
34:13 96:6 124:11	59:20 61:4 72:1	216:1 217:5	showing [1] 36:18	13:6 13:8 18:2
127:5 204:10	83:24 95:8 130:18	sentences [9] 33:6	shown [6] 27:19	18:6 18:9 18:17
route [1] 156:1	142:1 158:5 163:19	39:1 183:21 189:21	121:13 121:19 121:22	18:19 23:4 23:12
rule [1] 234:20	174:10 179:15 179:19	190:8 190:14 190:21	143:19 201:24	23:24 24:2 25:5
rules [4] 62:25 206:12	219:17 225:7	190:24 193:5	sic [2] 65:17 118:21	25:10 27:25 29:14
210:9 210:14	secretary [1] 79:9	separate [8] 7:6	side [1] 199:10	29:20 31:17 31:23
ruling [1] 234:20	section [17] 20:10	69:3 84:17 109:24	sign [8] 51:21 52:5	32:6 32:12 33:24
running [2] 102:19	38:13 59:22 68:8	110:4 110:8 220:10	52:6 52:10 52:21	34:4 34:9 41:1
204:9	166:16 167:25 168:3	220:25	53:12 55:21 237:13	41:2 41:16 41:25
S [3] 2:1 2:6	168:5 172:6 173:5	separated [2] 147:5	signal [3] 203:6	45:4 45:7 45:11
3:1	174:3 175:24 176:15	222:2	203:6 203:11	47:11 47:14 47:23
salary [3] 49:4	176:16 216:23 217:3	separately [3] 70:11	signature [9] 82:21	48:6 48:9 48:20
49:7 228:14	sections [3] 166:15	161:24 162:2	82:23 130:14 216:20	49:5 49:17 49:19
sale [1] 85:20	167:24 188:15	September [5] 91:11	226:16 226:19 226:19	50:7 50:23 52:1
Sambrook [13] 172:9	see [33] 8:18 20:19	91:23 92:3 92:8	237:10 238:25	52:15 53:25 56:5
172:20 173:2 173:17	21:1 24:8 24:14	96:8	signed [26] 52:23	56:10 56:18 57:2
173:20 173:21 173:25	24:21 32:20 44:5	sequence [13] 34:15	53:2 53:4 53:20	57:3 57:14 59:23
174:6 174:18 174:21	55:1 64:7 68:15	34:19 48:16 86:4	54:12 55:4 55:10	60:5 60:9 61:7
175:3 175:6 175:8	69:18 76:4 78:25	112:6 112:9 146:6	56:1 56:24 82:11	61:10 62:6 62:22
Sandcock [4] 2:8	81:17 83:10 85:6	146:7 146:9 146:12	82:23 83:17 83:18	63:5 63:9 63:14
5:17 225:11 225:14	92:15 97:9 111:7	146:22 185:14 203:4	83:19 85:2 85:7	63:24 65:19 66:18
sat [3] 127:19 127:25	130:18 147:8 158:3	sequenced [1] 50:4	85:22 88:1 91:15	66:23 67:2 67:7
220:9	158:9 161:8 162:5	sequences [15] 43:1	130:22 130:23 131:1	69:24 70:3 70:8
saw [12] 22:15 66:12	178:22 184:14 195:20	44:19 46:1 46:24	131:3 131:7 226:12	72:18 72:23 74:2
67:5 69:22 75:9	218:6 225:5 225:21	47:3 47:9 48:2	significant [4] 54:9	84:16 85:5 86:10
97:8 147:25 152:21	226:13	144:21 144:25 189:24	54:14 111:13 210:6	86:12 90:9 90:15
155:22 156:2 157:23	seeing [1] 120:22	190:9 201:1 201:11	91:15	90:18 91:6 91:21
192:12	seeking [1] 210:10	201:14 201:24	239:9	92:5 93:4 93:8
says [28] 25:12 31:24	select [1] 105:17	sequencing [7] 49:13	similar [2] 9:15	93:13 94:10 97:5
55:10 59:4 59:11	Selection [1] 151:5	49:22 50:2 183:17	233:19	97:14 98:4 98:7
67:18 68:9 77:13	self-explanatory [1] 162:25	183:25 184:1 184:2	similarity [2] 154:18	98:18 98:20 107:3
92:2 98:8 101:23	send [2] 119:4 162:24	sequential [1] 162:4	229:2	109:21 109:22 110:25
103:21 112:6 112:7	sending [2] 162:19	series [4] 74:16	simply [2] 216:12	111:22 112:1 113:4
133:6 133:7 133:8	sense [13] 44:14	86:20 155:7 220:5	229:2	113:7 114:19 114:22
133:9 133:11 146:2	50:3 55:16 55:17	set [4] 31:18 210:14	sine [1] 237:24	117:1 117:4 117:7
147:16 147:24 148:22		223:23 230:20	single [9] 108:16	117:14 117:25 118:8
149:13 149:16 157:18		seventies [1] 102:23	108:21 119:12 120:2	118:17 121:18 126:9
174:23 196:25		several [9] 82:6	153:20 175:4 183:11	126:22 130:1 130:3
scale [1] 210:21		84:1 149:6 169:24	183:22 202:6	135:6 135:24 136:7
		185:24 198:12 207:5		137:7 137:19 139:12
				139:24 140:5 140:17
				142:6 155:15 155:20
				156:23 157:4 158:21



## DR DAVID CHISWELL

## Condenselt™

## slowly - talks

159:19 160:4 160:11	sole [1] 21:2	specifics [2] 7:19	27:8 27:11 27:14	60:16 61:19 199:4
161:10 161:20 162:3	solely [1] 62:14	174:23	28:5 110:18 167:5	substantive [6] 77:22
162:7 162:12 164:13	solution [4] 40:21	specify [1] 126:23	169:5 172:3	77:23 122:23 122:25
164:17 164:20 164:23	41:8 46:10 59:12	speculative [1] 142:5	stay [3] 111:11 170:5	123:10 165:12
165:9 165:21 166:7	solve [4] 11:24 140:15	speeches [2] 45:8	231:7	success [2] 58:3
166:11 166:17 169:20	140:16 141:20	45:10	staying [2] 148:18	171:10
170:22 171:2 175:19	solving [2] 142:2	spell [4] 15:10 21:11	167:24	successful [2] 108:17
177:2 177:6 177:24	142:24	57:20 125:15	steer [1] 197:22	232:3
179:10 179:12 179:14	someone [11] 108:7	spoke [4] 44:12	stenotype [1] 240:5	successfully [1] 137:1
180:2 181:17 181:20	110:16 111:4 120:19	104:21 104:25 105:4	steps [2] 32:25 139:1	such [14] 16:2
181:23 183:3 186:3	123:22 125:7 147:6	spoken [1] 183:8	stick [1] 236:18	53:12 56:1 78:1
186:6 186:12 187:7	163:2 170:13 210:14	Spring [1] 8:23	still [11] 15:14 125:11	82:3 89:8 123:5
187:11 187:15 187:17	210:15	stab [1] 149:22	138:4 138:7 138:19	133:1 133:25 160:23
187:22 189:10 191:5	sometime [1] 199:15	staff [1] 229:21	139:14 140:11 143:7	169:21 178:22 215:11
191:10 191:12 194:5	somewhat [1] 211:8	stage [1] 142:15	144:7 168:4 187:11	239:3
194:7 194:14 195:6	somewhere [1] 176:5	stake [1] 89:25	stipulate [1] 226:1	suffice [1] 188:11
195:21 197:6 198:6	soon [4] 16:4 16:6	stamp [15] 8:11	stop [1] 102:3	suggest [2] 167:23
198:11 199:18 200:4	86:25 199:15	18:22 20:19 24:4	stopped [1] 22:13	173:18
201:18 203:21 205:19	sorry [31] 12:22	70:10 84:6 91:10	straight [1] 69:15	suggested [2] 44:9
205:21 206:25 207:3	14:20 16:11 21:13	98:23 130:6 161:24	stranded [2] 175:4	44:9
211:22 212:10 212:14	21:14 48:5 57:15	188:21 207:18 207:19	202:6	suggests [1] 158:15
212:18 213:10 213:21	74:13 77:23 78:5	208:25 213:25	Street [6] 1:21	suitable [1] 143:21
214:4 214:11 215:6	84:8 99:7 103:1	stamp [3] 24:9	2:4 2:9 2:12	Suite [2] 2:19 3:4
216:11 216:16 217:21	109:2 110:21 127:12	24:21 97:17	2:19 3:4	summarise [1] 31:20
218:2 218:5 218:14	128:8 144:1 147:19	standard [5] 172:22	strictly [5] 14:6	summarises [1] 98:14
218:21 218:24 219:2	163:6 164:12 168:7	172:24 175:5 202:17	27:21 125:19 128:19	summary [12] 72:4
219:16 220:3 222:4	178:4 187:15 187:16	230:5	182:25	72:8 81:21 81:25
223:7 224:11 225:6	190:15 206:10 218:15	stark [1] 215:11	strike [7] 13:10	82:1 82:5 179:21
225:9 225:17 225:24	233:5 233:22 236:13	start [14] 42:1 70:1	71:5 97:6 107:20	179:24 180:3 180:6
226:22 226:25 227:4	sort [28] 6:22 44:20	84:1 84:3 84:8	109:2 187:24 190:25	180:11 180:14
228:23 228:25 231:17	61:24 66:3 69:15	84:23 107:14 139:11	strived [2] 40:12	summer [8] 12:1
232:6 232:18 232:22	72:8 84:1 85:15	142:19 143:2 147:24	40:15	12:18 12:19 12:24
234:7 234:14 234:19	105:13 108:13 133:5	149:12 191:1 231:14	strong [5] 43:20	15:13 88:22 89:10
235:7 235:18 236:21	135:2 135:13 135:14	started [12] 15:20	91:14 146:16 167:4	229:9
slowly [1] 227:15	138:10 141:7 141:22	16:4 20:23 20:24	206:2	supplied [1] 193:7
Smith [97] 42:12	142:23 143:14 146:22	59:16 60:17 62:11	strongly [1] 44:9	supplying [1] 154:4
42:14 42:16 42:17	150:6 171:21 196:19	145:7 183:9 203:13	structure [2] 44:18	support [2] 149:16
43:3 44:5 44:8	211:18 217:9 219:9	233:12 233:15	179:2	150:5
100:25 103:11 103:22	sorted [1] 147:10	starting [1] 151:3	stuck [1] 115:18	suppose [4] 16:17
104:6 106:5 106:10	Sounds [1] 150:8	starts [3] 64:8	student [1] 149:5	17:12 149:20 150:4
107:8 110:6 110:11	source [1] 186:9	133:3 191:7	students [1] 149:7	surface [7] 32:15
112:6 112:13 114:25	speak [5] 101:8	state [19] 5:15	stuff [1] 114:21	39:7 39:21 43:15
116:4 116:9 117:8	103:13 139:20 170:15	11:25 34:17 63:3	styled [1] 172:18	64:22 196:10 197:2
117:9 119:9 120:6	192:24	63:5 95:19 95:22	subject [15] 1:11	surmise [2] 163:9
121:4 121:14 122:18	speaking [1] 152:10	95:23 117:15 138:15	50:24 104:15 105:4	166:20
123:1 123:11 123:16	specialist [1] 219:11	141:13 150:21 163:3	116:14 116:15 116:20	surprising [1] 123:22
128:6 128:7 128:11	specialists [1] 206:9	164:2 169:4 170:2	116:21 117:4 128:5	surprisingly [1] 31:6
129:9 129:18 131:13	specific [29] 18:18	186:4 195:1 207:15	140:5 183:4 209:10	suspend [1] 223:11
131:20 131:25 132:24	26:12 39:16 40:19	statement [24] 26:4	211:23 236:22	swear [1] 6:3
133:2 133:13 133:21	78:11 83:14 85:19	41:3 41:5 54:4	submission [1] 178:7	sworn [2] 6:4
134:6 134:18 135:3	104:24 128:12 138:14	54:8 54:22 68:9	submit [4] 133:13	6:8
135:8 135:10 136:9	142:14 147:16 147:21	75:21 77:14 119:20	133:19 133:21 133:22	syntax [1] 198:20
136:14 137:17 138:2	148:14 150:20 151:7	156:7 156:23 157:2	submitted [10] 105:11	synthesized [1] 201:25
138:2 138:3 143:23	159:6 168:25 174:13	157:21 159:2 159:6	124:4 128:23 134:6	synthesizer [3] 202:5
145:17 145:23 147:24	175:1 180:23 181:24	160:14 160:18 161:3	178:4 193:11 195:15	202:10 202:25
147:25 148:8 150:12	187:23 188:17 205:12	173:22 183:23 196:19	208:8 208:13 215:15	system [3] 134:25
150:13 150:17 150:18	210:13 215:21 227:1	statements [2] 190:10	subsequent [3] 170:4	136:6 146:5
150:25 151:1 151:9	specifically [11] 30:3 123:19 123:20	216:21	229:24 233:18	systems [1] 79:24
162:14 162:18 162:21	145:3 167:15 171:24	states [18] 1:1	subsequently [1] 12:3	table [2] 9:15 9:16
162:24 163:14 170:10	173:4 191:18 195:11	5:6 18:13 174:25	subsidy [1] 195:19	takes [1] 86:23
170:11 170:13 178:21	198:17 217:18	183:16 203:16 203:17	substance [1] 217:10	taking [2] 5:12
195:1 197:17 197:19	specification [5] 24:6 25:2 25:4	204:3 205:3 205:15	Substances [1] 19:5	153:1
197:22 197:25 198:8	25:7 25:13	205:23 206:6 209:23	Substances' [1] 227:21	talks [4] 135:1 149:6
198:14 198:25 199:3	specifics [1] 140:19	210:10 213:15 215:20	substantial [4] 59:15	
204:21 205:2 205:9		216:18 226:1		
205:14 205:14 205:22		stationery [1] 98:25		
206:5 208:5 208:13		status [9] 27:5		
209:5 209:16 209:19				
Smith's [12] 103:16				
104:11 106:18 106:23				
115:23 117:22 134:11				
134:21 149:6 149:7				
170:11 195:3				

## DR DAVID CHISWELL

## Condenselt™

## tantamount - vectors

183:15 200:8	240:2 240:22	10:1 22:7 40:2	198:21 199:19	undertook [1] 169:6
<b>tantamount</b> [1] 159:22	<b>themselves</b> [3] 43:15	76:11 82:3 83:13	<b>trying</b> [15] 32:16	<b>undoubtedly</b> [4]
<b>tape</b> [3] 90:10 90:21	170:16 236:17	90:6 100:20 144:13	43:22 44:21 50:5	143:24 144:2 184:3
161:17	<b>theoretical</b> [2] 142:16	148:6 148:14 150:6	54:6 98:4 100:13	184:5
<b>tapes</b> [1] 237:22	143:1	170:6 188:1 190:20	101:2 109:17 125:5	<b>unduly</b> [1] 157:18
<b>team</b> [1] 13:15	<b>theory</b> [1] 183:7	192:18 193:2 205:7	129:7 184:8 194:12	<b>unfair</b> [2] 31:22
<b>technical</b> [5] 83:20	<b>there'd</b> [1] 96:12	205:8 205:13 207:9	194:21 195:14	31:23
112:11 112:12 187:18	<b>thereafter</b> [3] 33:3	219:5 219:14 221:12	<b>Tuesday</b> [3] 1:18	<b>unit</b> [1] 231:1
187:21	77:16 200:13	223:12 225:2	70:21 239:7	<b>United</b> [15] 1:1
<b>technically</b> [1] 152:10	<b>therefore</b> [1] 77:4	<b>today's</b> [4] 5:9	<b>turn</b> [4] 84:5 86:2	5:6 18:12 203:16
<b>technique</b> [1] 146:6	<b>thereof</b> [1] 240:6	7:17 73:5 237:21	89:14 186:13	203:17 204:3 205:3
<b>techniques</b> [1] 172:24	<b>thereto</b> [1] 70:19	<b>together</b> [6] 17:19	<b>turned</b> [2] 16:18	205:15 205:23 206:5
<b>technology</b> [16] 1:7	<b>therewith</b> [1] 70:19	27:18 44:22 89:17	168:2	209:23 210:10 213:15
5:5 5:21 6:18	<b>thinking</b> [7] 35:10	145:1 147:9	<b>twelve</b> [5] 233:3	215:19 216:18
6:23 15:23 17:1	35:11 35:18 102:8	<b>tomorrow</b> [1] 69:5	234:16 235:2 235:8	<b>unless</b> [6] 91:22
49:21 75:7 89:1	143:6 143:14 197:3	<b>too</b> [9] 20:10 22:11	236:2	108:7 161:8 164:7
97:9 99:19 141:21	<b>third</b> [2] 85:16 161:17	43:20 85:7 91:14	<b>twice</b> [1] 191:22	173:17 173:24
203:24 228:1 228:15	<b>thirty-nine</b> [1] 235:17	135:22 167:4 187:20	<b>two</b> [28] 7:6 15:5	<b>unlikely</b> [1] 119:7
<b>telephone</b> [3] 102:17	<b>thoroughly</b> [1] 83:1	<b>took</b> [8] 8:22 29:24	24:24 26:15 27:2	<b>unnecessarily</b> [1] 222:16
<b>telling</b> [2] 117:11	<b>thought</b> [17] 80:15	87:22 96:17 125:17	44:22 57:22 67:10	<b>untrue</b> [1] 117:6
156:9	110:15 122:22 127:7	135:13 159:24 240:4	67:16 67:24 68:2	<b>up</b> [25] 60:22 84:17
<b>ten</b> [3] 119:19 199:18	139:3 141:9 144:11	<b>tools</b> [2] 153:16 154:4	69:3 100:22 109:24	93:24 104:4 106:12
229:12	171:13 171:16 171:20	<b>top</b> [10] 24:22 99:14	133:20 161:25 168:16	120:15 122:2 128:6
<b>term</b> [9] 139:18 139:19	176:2 180:4 183:2	101:21 106:4 114:10	169:1 169:12 170:3	128:15 129:19 153:5
142:13 176:25 177:1	183:25 187:17 211:21	114:21 119:2 131:22	170:5 170:19 171:17	155:18 156:5 156:16
208:12 229:7 229:16	213:12	133:4 174:12	171:24 186:2 192:10	163:21 187:12 188:15
232:19	<b>three</b> [8] 93:11 175:22	<b>topic</b> [10] 104:22	232:6 236:8	189:19 190:1 190:10
<b>terminate</b> [1] 223:7	180:20 181:3 184:7	105:5 105:18 111:8	<b>type</b> [4] 151:5 202:13	199:17 218:25 219:5
<b>terminus</b> [9] 43:4	200:25 201:9 237:22	135:2 175:21 213:1	202:14 236:3	220:14 230:20
43:5 43:18 96:20	<b>through</b> [50] 8:9	213:3 215:23 219:13	<b>UK</b> [3] 227:18 227:19	<b>upper</b> [2] 163:21
136:20 136:24 143:22	8:12 9:6 9:7	<b>topics</b> [2] 175:22	230:5	185:17
170:19 171:6	12:2 15:13 18:23	180:25	<b>ultimate</b> [1] 138:18	<b>upside</b> [1] 104:4
<b>terms</b> [17] 8:3	33:16 38:25 46:23	<b>total</b> [1] 237:21	<b>ultimately</b> [6] 15:22	<b>USC</b> [2] 217:2 217:3
55:22 56:1 65:11	56:20 74:10 74:15	<b>toward</b> [1] 90:10	16:25 17:22 18:12	<b>used</b> [26] 8:3
89:23 89:24 111:1	79:19 81:1 83:24	<b>traditional</b> [1] 62:24	75:4 150:14	44:10 46:22 59:24
111:5 132:6 141:16	84:12 85:1 87:13	<b>trail</b> [1] 156:3	<b>Umberger</b> [3] 2:11	81:15 94:3 106:16
153:25 157:5 169:14	87:22 88:23 89:10	<b>training</b> [1] 11:3	5:18 164:19	137:2 137:11 137:15
170:14 172:4 210:6	91:10 98:23 103:17	<b>transcribed</b> [1] 240:7	<b>uncertain</b> [1] 78:10	142:10 143:23 146:3
230:6	104:1 104:8 121:11	<b>transcript</b> [4] 237:7	<b>unclear</b> [2] 9:12	147:16 151:13 151:15
<b>testified</b> [5] 159:1	125:4 129:11 130:7	237:17 239:5 240:6	185:22	172:8 172:16 172:20
159:23 160:13 208:16	130:12 145:17 145:24	<b>transfer</b> [1] 83:20	<b>under</b> [25] 7:1	172:24 180:12 182:5
225:25	164:25 168:14 169:24	<b>transgenic</b> [1] 146:2	7:9 39:2 51:14	182:7 198:24 232:24
<b>testify</b> [1] 6:9	171:8 174:11 178:25	<b>travel</b> [1] 237:3	62:25 68:8 83:9	237:22
<b>testimony</b> [10] 113:9	188:3 188:20 189:18	<b>treat</b> [1] 231:5	86:7 86:13 94:20	<b>useful</b> [5] 46:1
129:11 160:21 160:24	189:22 190:9 204:11	<b>treated</b> [1] 155:1	106:6 174:3 175:12	115:3 115:15 116:1
178:9 222:17 225:20	213:25 214:23 228:12	<b>trick</b> [2] 112:11 112:11	175:21 180:19 180:24	184:8
226:6 237:9 237:17	231:8	<b>tried</b> [5] 108:15 115:1	182:14 184:18 188:20	<b>using</b> [13] 36:15
<b>text</b> [3] 19:14 19:20	<b>throughout</b> [3] 103:22	119:10 119:11 119:11	200:24 201:8 203:4	50:1 66:2 87:14
39:18	125:2 141:25	<b>trip</b> [1] 145:16	216:23 217:3 237:18	92:12 118:2 136:2
<b>textbook</b> [2] 172:21	<b>throw</b> [1] 36:16	<b>trouble</b> [6] 21:15	<b>understand</b> [37] 26:19	136:4 146:6 177:4
175:9	<b>Tim</b> [5] 5:21 47:17	21:17 45:5 53:21	29:6 33:24 47:2	187:18 212:1 212:20
<b>TGI</b> [1] 174:24	48:22 160:7 166:13	125:8 227:14	48:25 51:16 51:22	<b>usual</b> [2] 174:1
<b>thank</b> [22] 6:1	<b>timely</b> [1] 229:1	<b>true</b> [24] 48:10 48:14	52:2 52:4 62:19	174:5
14:22 25:14 25:17	<b>times</b> [5] 52:18	48:22 49:12 66:5	63:7 76:4 76:9	<b>utilised</b> [1] 135:8
54:1 57:2 86:2	100:14 122:7 207:5	69:11 69:17 72:10	76:11 77:1 99:16	<b>vague</b> [3] 137:6
86:11 92:2 166:2	228:11	72:13 76:12 131:9	100:4 103:7 136:15	211:8 214:21
166:11 170:24 189:7	<b>timings</b> [1] 204:5	158:22 195:13 195:20	137:15 156:16 159:3	<b>validly</b> [1] 157:19
227:4 227:8 232:16	<b>TIMOTHY</b> [1] 2:21	196:12 208:11 208:15	159:17 159:19 173:19	<b>various</b> [6] 9:2
232:17 236:21 237:4	<b>tip</b> [1] 112:12	209:3 209:8 209:14	177:8 189:5 197:11	46:1 90:1 100:13
237:15 237:16 237:19	<b>tired</b> [1] 219:1	219:3 235:12 239:5	203:15 203:22 208:21	153:13 170:17
<b>thanks</b> [3] 45:6	<b>Tissue</b> [2] 151:5	<b>try</b> [16] 63:21 69:16	220:7 222:16 224:4	<b>vector</b> [8] 135:21
103:3 147:12	151:7	69:17 93:12 125:5	224:15 224:19 227:24	135:23 135:24 142:8
<b>Thelma</b> [15] 1:25	<b>title</b> [8] 85:20 86:7	132:15 139:7 139:8	<b>understandings</b> [4] 88:16 89:6 89:8	142:10 142:14 151:4
6:2 60:23 63:13	86:13 86:16 124:15	145:2 145:3 145:15	90:5	151:13
63:14 110:21 116:18	124:17 166:14 166:19	150:21 187:2 197:21	<b>understood</b> [7] 76:1	<b>vectors</b> [13] 139:5
126:10 177:12 179:7	<b>today</b> [30] 5:11		88:17 134:13 135:5	139:9 142:7 142:8
187:7 218:20 234:22	6:2 7:8 7:12		149:4 169:5 220:5	181:1 182:22 183:1

183:23 184:10 184:14	179:2 193:5 229:15	70:1 70:4 70:6	109:18 110:8 171:10
184:19 186:2 203:4	231:4	70:6 71:1 73:12	188:9
venture [1] 142:5	Wilcock [2] 124:9	73:24 83:25 84:20	writing [18] 10:9
Verbatim [1] 240:4	128:4	85:9 90:16 93:12	10:13 55:2 62:2
versions [1] 156:5	Wilson [1] 79:10	93:24 103:19 104:5	75:11 87:1 89:4
versus [1] 5:5	Winter [78] 4:17	110:22 111:24 113:5	104:4 147:19 148:21
Vezeau [172] 2:21	4:18 4:18 4:19	114:17 117:17 126:19	157:17 161:5 163:21
4:5 5:20 5:22	4:19 11:17 16:14	134:20 136:1 137:9	163:24 167:18 172:4
10:7 13:3 13:7	16:20 18:21 20:14	137:14 138:22 139:20	173:1 193:13
17:25 18:4 18:8	22:14 23:21 26:9	139:22 140:7 140:13	written [25] 37:4
18:14 23:2 25:3	27:18 34:25 36:11	140:25 147:3 155:17	48:8 70:16 70:22
25:6 25:9 27:24	36:19 56:20 67:12	158:7 159:18 159:23	87:8 88:4 89:23
29:5 31:14 31:19	67:21 68:6 69:18	160:10 162:9 162:9	101:11 105:9 105:23
33:20 34:3 40:24	69:20 69:21 71:15	164:21 165:7 165:10	109:3 109:7 115:12
45:2 45:6 45:9	71:21 73:1 78:13	166:12 169:11 170:25	115:19 161:1 172:2
47:10 47:13 47:18	81:9 88:15 89:9	171:19 174:10 175:16	172:12 176:4 177:22
48:5 48:18 48:24	90:3 94:9 94:13	177:4 177:10 177:18	179:1 190:17 190:23
49:15 49:23 50:20	95:15 96:10 114:7	182:25 187:2 187:9	210:25 224:24 234:12
51:24 52:12 53:23	121:2 145:20 146:2	187:16 187:19 188:25	wrong [5] 14:19
57:1 57:13 59:21	146:20 152:24 155:3	189:7 189:8 190:3	19:2 112:12 127:10
60:22 60:25 61:5	155:4 155:10 156:6	191:8 191:11 194:23	134:8
61:22 62:19 63:2	157:17 158:8 158:9	195:19 197:1 198:7	wrote [11] 41:5
63:8 63:12 65:18	158:14 158:19 158:20	199:22 200:22 201:6	62:1 76:16 109:4
66:16 66:21 66:25	158:23 159:1 159:10	201:13 207:21 211:10	109:24 148:12 171:25
73:18 73:20 84:14	160:13 164:10 164:19	211:12 211:18 213:2	189:11 190:8 196:13
84:19 86:8 86:11	164:20 165:25 166:1	213:6 214:2 214:9	196:14
90:12 90:19 93:2	166:2 167:10 174:7	214:10 214:14 214:22	X [1] 4:1
93:7 93:10 98:1	178:16 179:23 180:17	217:17 217:23 218:3	Y [19] 51:22 52:5
106:20 107:1 109:19	186:15 186:20 186:21	218:12 219:20 221:23	52:6 52:7 52:10
110:21 110:24 111:21	191:23 195:23 200:6	222:21 224:12 227:5	52:21 52:23 52:24
113:3 114:16 114:20	210:19 214:25 220:8	231:18 232:17 234:11	53:20 54:12 54:17
116:17 116:23 117:3	224:8 239:10	235:4 235:16 236:15	55:5 55:8 55:10
117:5 117:11 117:17	Winter's [6] 23:20	236:15 237:15	55:13 55:19 56:6
118:3 118:6 118:10	100:3 100:10 141:15	Witnesseth [1] 83:9	56:24 88:2
121:16 126:7 126:10	153:23 157:6	Wood [14] 15:9	year [7] 6:20 9:13
134:15 135:22 135:25	Wisconsin [2] 2:5	37:3 70:13 71:21	22:12 87:3 178:1
137:5 138:20 139:17	2:13	72:9 75:14 82:24	191:17 231:8
140:1 140:3 140:23	wish [8] 30:24 38:20	83:20 85:3 85:23	years [6] 12:3 17:4
155:13 156:22 157:1	39:1 92:11 157:25	91:12 91:20 99:7	82:6 100:22 204:15
158:20 159:12 160:2	170:16 190:2 218:3	word [34] 19:2	204:16
160:6 160:9 162:1	withdraw [1] 231:21	23:7 33:16 43:20	years' [2] 30:5
162:5 164:11 164:15	within [30] 13:14	53:22 56:25 57:18	119:19
165:8 166:3 166:10	15:18 27:13 27:16	59:25 64:3 64:16	yesterday [3] 18:21
169:9 170:21 170:24	27:17 28:14 34:11	65:1 66:2 66:4	156:16 159:24
175:14 176:24 177:8	34:16 34:17 41:13	77:18 91:15 94:3	yct [4] 77:2 77:12
177:12 179:9 179:11	41:22 42:24 44:11	104:6 104:13 106:6	197:3 223:10
179:25 181:14 181:22	44:20 68:23 71:21	112:12 125:7 144:18	York [2] 8:23 99:16
182:23 186:5 186:25	73:24 128:20 128:21	146:14 163:20 166:9	yourself [10] 53:13
187:20 189:2 191:4	133:20 153:14 154:15	167:4 177:2 178:16	61:12 73:3 82:22
195:17 196:24 198:3	170:18 172:19 185:15	180:12 182:5 187:18	89:9 91:12 92:23
199:21 201:4 203:18	194:24 226:8 229:12	188:10 202:2 206:2	93:20 151:25 198:23
205:17 211:7 212:6	230:3 233:16	words [8] 8:10	yourself [1] 5:15
212:13 212:15 212:25	without [11] 7:20	29:3 29:16 49:25	youth [1] 125:6
214:20 216:2 216:9	31:24 51:8 83:1	119:9 146:15 168:15	Zavis [3] 2:18
216:13 217:17 218:18	112:9 119:21 139:23	193:5	3:3 5:24
221:19 223:13 223:21	180:19 180:24 185:3	worked [17] 22:9	Zoller [1] 133:4
224:13 225:8 225:13	186:6	22:12 44:5 44:6	[unchecked] [1] 217:4
225:15 225:18 226:3	witness [138] 5:20	44:24 47:3 53:15	
226:23 227:2 227:8	6:3 6:4 8:17	53:21 54:19 56:24	
227:10 228:24 229:3	10:11 19:1 23:6	57:7 102:23 107:8	
231:19 232:4 232:14	25:8 29:11 29:18	110:14 110:15 116:6	
234:5 234:9 234:17	31:10 32:2 32:4	153:4	
234:22 234:25 235:14	32:10 34:6 34:6	worker [2] 56:1	
236:12 236:25 237:16	36:25 37:22 38:23	76:7	
Vezeau's [1] 232:23	47:16 47:21 48:3	workers [1] 53:4	
VH [1] 183:11	48:7 48:22 49:2	works [2] 40:12	
via [2] 236:16 236:17	49:25 53:24 56:8	137:18	
vicinity [1] 209:1	59:24 60:1 60:7	world [1] 117:21	
video [3] 5:10	60:13 60:20 61:3	worth [1] 43:22	
5:11 237:18	61:8 61:24 63:9	write [6] 64:13 86:24	
	63:11 63:19 66:24		
VIDEOGRAPHER			
[20] 3:10 5:2			
6:1 56:12 56:16			
90:20 91:2 118:11			
118:15 161:11 161:16			
165:15 165:19 199:23			
200:2 219:22 220:1			
232:8 232:12 237:20			
videotape [2] 5:2			
91:3			
VIDEOTAPED [1]			
1:12			
view [14] 76:3			
76:6 115:22 157:19			
157:23 158:15 159:21			
169:16 196:15 197:7			
221:16 221:21 221:25			
236:1			
viewed [1] 40:10			
viewer [1] 228:17			
viewers [1] 227:13			
views [1] 188:8			
VIII [1] 136:11			
Vincer [2] 3:11			
5:12			
viral [3] 174:14 174:16			
174:23			
VIRKENAS [1]			
2:14			
Virneckas [1] 5:19			
visiting [2] 53:4			
76:7			
voice [1] 5:14			
volume [1] 174:25			
volunteer [1] 119:17			
vs [1] 1:6			
W [1] 3:3			
Wait [1] 181:14			
waived [1] 237:10			
waiver [3] 117:2			
117:13 117:23			
walk [1] 90:16			
Walt [1] 132:11			
Walton [7] 3:6			
5:25 6:6 121:7			
129:17 209:9 209:15			
wan [1] 200:5			
wants [1] 84:16			
Washington [1] 2:10			
ways [4] 142:2 142:21			
142:24 197:3			
week [4] 9:14 15:24			
16:13 73:19			
weeks' [1] 96:6			
welcome [1] 190:1			
West [2] 2:19 3:4			
what're [1] 19:20			
whereas [7] 83:9			
175:3 225:5 227:12			
227:17 227:25 228:7			
WHITE [3] 2:3			
2:9 2:11			
whiz [1] 104:8			
whole [8] 31:1			
53:18 129:3 133:16			

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